

A Philosophical
DISCOURSE
Concerning
SPEECH,
Conformable to the
CARTESIAN PRINCIPLES
Dedicated to
The Most Christian
King.

Englisht out of French

and ... ad for my self
an ... the 1690

In the S A V O Y,

Printed for John Morris, Printer to the Royal
Society, and are to be sold at the Bell,
little without Temple Bar, 1690.

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TO THE
KING.

SIR,

THis Discourse is the
sequel of some o-
thers, that have al-
ready appear'd in
publick, under the
August Name of Your M A J E-
S T Y. I thought I was obliged
to offer unto You the *First* part of
this Work, forasmuch as having
propos'd to my self at the begin-
ing, to give each man to consider,

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what

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what He is, me thought, that Your MAJESTIE should find in this consideration more pleasure than all other Men. I have the same reasons to present this also to You, where I treat no more of the *Knowledge of our selves*, but of the *Means to know others*, and to be known by them. I shew, that this Means is SPEECH; I explain all the Effects thereof, and the better to discover the Causes, I carefully inquire into all, it borrows from the Body or the Soul. These Causes, SIR, are so excellent in Your MAJESTIE, that You will doubtless have an incredible satisfaction to examine them: Above all things I am perswaded, You will find more of it than any Man, when you shall consider its Effects. You will see, it is *Speech*, which

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which produceth what Your MAJESTY loveth most, I mean, *Glory*, and you'll acknowledge, that to it you owe that Lustre, which maketh Your MAJESTY out-shine all the Powers of the Earth. 'Tis by it, SIR, that You express those Generous Thoughts, which all tend to our Felicity; and 'tis by the same, that you have atchieved those great things, which make all Nations say, that *You* are the Greatest Prince that ever was.

I know, SIR, that men admire no less in Your MAJESTY the Faculty you have to be silent, than the Facility to speak : I know, I say, that the Prudence you have to be silent, is one of the reasons, which make others speak so much of *You*. But I remember very well,

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well, that *Secrecy*, how favorable soever it is to great *Desseins*, cannot alone make them succeed, and that, how-ever Your MAJESTY hath advantagiously used it in all the Contrivances you have made for our Happiness, you would never have obtain'd the Execution thereof, if you had not employ'd *Speech*; it was necessary, Orders should be given for that. Indeed, SIR, you know how to give them as becoms a Prince, who needs none but himself to *contrive* and to *resolve*. You alone know, why you give them, and those that receive them, often not know the excellent End, Your MAJESTY proposeth to your Self, but at the moment, which makes them successful.

How amiable is *Glory*, when a
Man

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Man thus owes it entirely to himself ! And how pure & sincere doth that of Your MAJESTY appear to me ? Others, who have only *Power* for their *Potion*, hear themselves praised for a thousand Events, wherein their Conduct had no part : Words are alwayes found for them. But all the Actions of Your MAJESTY, are so much above what can be said of them, that those to whom Praise costs least, complain they can find none to expresse them. Such an one hath demanded *Ten years* to write, what we have seen *You* do in *Ten dayes* : And another that knows, it requires less pains to compare *Here's* with one another, than to write their Praise, hath endeavour'd to find like ones to Your MAJESTY, but could meet with

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none among all those, whom Antiquity hath left recorded. Indeed, SIR, none of them are known, whose Passions have not guided all their Enterprises : the world hath seen him, whom past Ages have most boasted of; to follow nothing but the motions of his Ambition, and, without at all considering the tranquillity of his Subjects, to carry the trouble into whole *Asia*; whereas, SIR, all *Europe* hath seen You, young and victorious, shewing favour to your Enemies, that you might give Peace to your people : And it seeth at this very time, that *Your Majesty* covets not a great Country exposed to your Conquests, but desires only what of right you can pretend to. This moderation, SIR, is the greatest Virtue of *Kings*, and especially

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cially is it admirable in a Prince *vigilant* enough to surprise the Enemy in a season, when the most ardent Spirits for war, do quit that painful exercise; and *brave* enough to execute himself, what the boldest durst not advise. What Mortals, SIR, could have stopt *Your Majesty*, accomplisht with these Excellencies, if the Right of *Bien-seance* could have tempted you? But your Neighbours were to assure themselves afresh, 'tis not Ambition that hath armed you; 'tis from the hands of Justice, you hold that sword, which subjects the *Provinces* in less time, than needs to march through them. *Brabant* and *Henaut* may give testimony hereof to the rest of the World. *Your Majesty* hath made them know your Right, because
you

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you let them feel the force of your Armes ; and 'tis known, that their Revolt is the only cause of those great Exploits, which History will never be able sufficiently to celebrate, and for which *Poesie* it self, which boasts to speak like the Gods, confesses to want expressions. But *Sir*, though *Poesy* cannot express the surprizing effects of your Courage, take it in good part, that *Philosophy* does rebuke the *Excess* of it, and that with her usual liberty she reproaches you for having expos'd your *Sacred Person* like that of a Common Souldier. This reproach would make up the Glory of every other Prince ; but *Sir*, how could any man have excus'd *You* to posterity , if that Great Heart, which is not given you but to sustain the Destiny of
France,

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France, had made you be cast away in this occasion? One cannot praise enough this ardor, which maketh you quit pleasures in the midst of Winter; but how noble soever it be, it is to be blamed, when it makes you seek dangers, and when it exposeth, against *rebellious* Subjects, a life so precious to so many other faithful ones. Be pleased, *Sir*, to hearken to that zeal, which speaks to you; It hath alwayes lov'd Kings, it hath never flatter'd them, and as it knows none greater than *Your Self*, it cannot at that time, when it intends to discourse of *SPEECH*, make better use of it for the good of the Universe, than to tell what you owe to your own *Preservation*.

I shall add, *Sir*, that the same
being

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being to declare it self upon this Subject by the mouth of a *Man*, it could not choose any one, whose Zeal were equal to mine. I am

S I R,

Of Your Majesty

*The most humble, most obedient,
and most faithful Servant
and Subject,*

CORDEMOY.

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The Preface.

I Proposed in the Six Discourses, which preceded this, * the means to know Our selves, & made it manifest, that it only consisted in discerning in us the Operations of the Soul, and those of the Body. Now I propose the means of knowing Others, and that is SPEECH. I explain as far as I am able, What it is; and pursuant to my first dessein, I endeavour in this Discourse exactly to distinguish what it borrows of the Soul, from what it holds of the Body.

I. To begin this Inquiry with the more certainty, I do not reason but upon what I have found within my self in the Sixth Discourse of the lately mentioned Book; and as if I had never yet been assured, there
were

* Publisht A.
1666. under
the Title, Le
discernement
du Corps &
del' Ame; of
which see
Phil. Transf.
No. 17. p. 306.

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Were other Men besides my self, I stay in the very beginning upon this Consideration, viz. Whether it be necessary, that all the Bodies, which I see to be like mine, be united to Souls like mine? Resolving with my self not to believe it, unless I have such evident signes thereof, that I may doubt no more of it. I examine, What those Bodies do that's most surprising; and as long as I can rationally impute the Cause thereof to the Disposition of their Organs, I think, I may safely asseirme, they have no Soul. But after having found in the sole Disposition of the parts of those Bodies, that thence I can render a reason of Noise, the Sounds, the difference of the Voices, and the very Words utter'd by Echo's and Parrets, I am at length obliged to admit Souls in all the Bodies that resemble mine, and to acknowledge it not possible for them to speak to such purpose, as they do, without being endowed with Reason.

2. Next, having found, That to speak is in general nothing else, but to Give signes of our Thoughts, I observe some of those signes. The first, I consider, are the

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the *Motions of the Eyes or Face*, and such *Cries*, as ordinarily accompany the differing states of the Body: And I take notice, that they are naturally conjoin'd with the *Passions*, of which the Soul is sensible on the occasion of changes in the Body; and that the best way we have to manifest what she suffers, is, not to strain the Face, Eyes or Voice. I note likewise, that this way of explicating our selves, is the first of Tongues, and the most Universal, there being no Nation but understands it: But I observe at the same time, that the wickedness of Men hath made that the most deceitful of all. Besides those Natural signs of the Passions of the Soul, I discover others, which are but Instituted ones, by which she can express what ever she conceives. I shew briefly the agreement and the difference of some of those signs, to make all to be understood, what I intend to deduce from thence in this place; and reserving to my self to discourse of it more strictly, and more to my purpose thereafter, I stay to consider, How one may invent a Language; How a man may learn the Tongue of a Country, where no body understands

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derstands his, and lastly, *How Children learn to speak.* I admire, how their Reason is put to it in that Infant-age, to make them discern and distinguish the signification of every word; above all, the Order, which they follow for that purpose, appears to Me surprising, forasmuch as 'tis altogether like that of the Grammar; so that seeing, how much this Art imitates Nature, I find no difficulty to make it out, How those, that have given us the Rules whereof, have learnt them from little Children. And in this whole research I meet with so many Arguments to evince the Distinction of the Body and Soul, that to me it seems not, there can any thing be more evidently known, than *She*.

3 After some reflexions on so important a Truth, I betake my self, for the yet better knowing of the nature of Speech, to unfold in this place all what is to be found in it on the score of the Body. I consider therefore in him that speaketh, the manner how the Air enters into the Lungs; Why it maketh a sound in issuing out at the Wind-pipe? How the Muscles, that serve to open or shut this conduit, diversifie the sound?

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sound? What parts of the mouth are employed to determine it in a Voice? What is the configuration of every one in these different terminations? and what is the Change of the Throat, the Tongue, the Teeth, and the Lips, in all the Articulations? Which giveth me to understand, as much as needs, what Speech is, as far as it depends upon the Body. I observe with the same accurateness the effect, which by sound is produced in the Ear and Brain of him, that beareth. I find, it is from the correspondency between the Brain and the other parts of every Animal, that it can be so differently moved by different sounds; and examining chiefly the use of the Nerves, which diffuse themselves from the Ear to all the parts serving to form the voice, I discover the reasons of many odd effects; and amongst them, of certain Birds imitating the singing of others, and the sound of our Musical Instruments, and often our very Words.

4. I also draw from thence a convincing argument, that Brutes need no soul to cry, or to be moved by Voices, or even to imitate the sound of our words; and that if
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the cry of those, that are of the same species, disposes them to approach one another, and maketh those that are of a different kind, to retire; the cause of that is to be sought nowhere else but in their Bodies and the different construction of their Organs. But at the same time I find, that in Men, the motion of the parts, which serve for the Voice, or of those that are moved by it, is ever accompanied with some thoughts; and that in Speech there are alwayes two things, viz. the Formation of the Voice, which cannot proceed but from the Body; and the Signification or the Idea, that is joyn'd therewith, which cannot come but from the Soul.

§. And because hitherto I have said almost nothing of the Voice, of Writing, and of Signes, but what may serve to declare what those three ways of expressing our thoughts have in common (there having been no occasion, sooner to observe the differences of each) I take notice in this place of three sorts of Signes, of two sorts of Writing, and of two of Voices. I stay principally upon the last, on which occasion I finish the explication of what the order
of

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of the precedent matters had not permitted me to explicate sooner, touching the easiness or difficulty, there is in joyning certain Idea's to certain Words, when we learn a Language: And making out as accurately as I can, how all that is done, I find, that the trouble which some have to conceive, or to explain themselves, is not an imperfection in the Soul; and that that marvellous facility, which others enjoy to express themselves, proceeds only from an happy Disposition of the Brain, and of all the parts that serve for the Voyce or for the Motions of the Body.

6. On which occasion I inquire into the natural causes of Eloquence, and find, that to the perfection thereof are required two talents at once, which by birth are never given to one and the same person, but yet that one of them being furnish'd by Nature, the defects of the other may be supply'd by Art. And having remarked, that that is not reciprocal, I declare (as far as I may in a Discourse where I am to explain but the Principles) whence those defects proceed, and by what they may be corrected; and I do even examine, without stepping into

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into the Ethicks, why an Orator ought to be a good man, and how much Lying may impair the force or the grace of his action.

7. Lastly, having considered sufficiently, how much Eloquence depends from the Temperament, and how it may be corrected or perfected by exercise, I examine, Whether it is to be met with among Spirits not united to Bodies : Which obliges me to enquire into the manner, after which they may manifest their thoughts to one another ; and it makes me discover, that even our Spirits would enjoy a more easie communication among themselves, if the strict Union they have with the Body, did not indispensably oblige them to make use of Signes. The same ratiocination teaches me also, that the difficulty we meet with in entertainments, is not to conceive the thoughts of those, that speak to us, but to unwrap it from the Signes they use to express it in, which often do not suite with it : Whence I conclude, that the Thought of one Spirit is alwayes clear to another from the very instant he can perceive it. And this truth (which I discuss as far as

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I am capable) serves me to resolve those difficulties, which others have thought unsurmountable but by submission to Faith. I well know, 'tis Faith, that must teach us, whether sundry things have a being indeed; but there is not alwayes need of its aid to conceive them. It belongs to it, for example, to tell us, whether there be other Spirits more enlightned, that serve to direct ours; but when once it hath declared to us that truth, me thinks, our reason can attain to it. And I esteem, that reflecting a little on what the thred of my subject hath obliged me to write of it in this Tract, we shall find it more easie to conceive, how pure Spirits can inspire us with their sentiments, than to conceive, how one Man can inspire his thoughts to another.

*I might have proceeded further in this Inquiry, but having proposed to my self only to examine what serves to Speech, I thought I was to make an end, after I had consider'd the sundry wayes by which Thoughts may be communicated, seeing that that is properly, what we call To speak. I could wish, that the discourse I
have*

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have made of it, might prove as pleasant to others as the reflexions, it hath obliged me to make, have been to me. I avow, they have been all the divertisement I have enjoyed during the last Vacations; and as it is, at least in that time, permitted to comply with our inclinations, the pleasure I have found in it, solicits me strongly to spend in the same manner all the other hours, wherein I may be permitted to divert myself. To conclude, this Argument is so pleasant and so fertile, that one needs but to propose it, and it will beget a thousand pleasing thoughts: And I doubt not, but all those that excell me in genius, will find by occasion of this Discourse a thousand pretty things, which I have omitted; so that without boasting of my Book, I may affirm, that the more wit a man hath, the more pleasure he will find to read it.



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DISCOURSE
O F
SPEECH.



Mongst the Bodies, I see
in the World, I perceive
some, that are in all
things like mine, and I
confess, I have a great
inclination to believe,
that they are united to Souls, as mine is.
But when I come to consider, that my
Body hath so many operations distinct
from those of my Soul, and that nothing
of what maketh it subsist depends at all
from Her, I think I have at least ground

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to

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to doubt, that those Bodies are united to Souls, until I have examin'd all their actions: And I do even see, that by the maxims of good sense I shall be obliged to believe, that they have no Soul, if they do only such things, whereof I have found in my self that the Body alone may be the cause.

Thus if I see, that the Objects make different impressions on them by the Eyes, Ears, Nose or Touch, and if I see them eat, sleep, wake, feed, breathe, walk, and dye, nothing of all that ought to make me believe, that there is any other thing in them but a certain disposition of organs and parts, which indeed is admirable, but yet so dependent from the course and order of the other matter, that I have acknowledged *that* to be the only cause in me of Nutrition, Sleep, Respiration, and of the power which objects have to move the Brain so many surprising ways.

'Tis true, I have observ'd, that certain Thoughts alwayes accompani'd in me most of the motions of my Organs, but yet 'tis true also, that by the exactest

preciseness, with which I have distinguished what was in all my operations on the account of the Body, and what on the score of the Soul, I have found manifestly, that if I had nothing but the Body, I might have all what appears to me in the other Bodies, which resemble mine.

It behoves me therefore to observe those Bodies nearer, and to examine, whether I may not perceive by any of their Actions, that they are ruled by Souls. I see, that ordinarily they are carried to places, where the Air seems most proper to entertain by respiration a due temper in the Blood. I see, that they withdraw likewise from places, where the Cold might too much retard the motion, and from those, where the Heat might render it too quick. I see, that they often flye with vehemence from the encounter of many other Bodies, that appear to me of a Shape and Motion capable to destroy them; and I see also, that they approach those, which may be beneficial to them: And all these actions appear to me to

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be done with a discerning such as I find in me, when I do the same actions.

Mean time, when I reflect, that I have found by other Contemplations, that the sole *Disposition* of the *Organs* is the cause of all those operations in me, I fear I affirm too much, if I attribute the different motions of the Bodies, that surround me, to another cause, than to the agreement, there is between their Brain and the Objects; and then, as long as I do not see them do but what is for their good, as to eat, to drink, to seek after coolness or warmth, and whatever may maintain them in a state suitable to their nature, I am not to believe, there is any other thing in them but the *Organs*, which may suffice for that.

But me-thinks, I see them often do things that relate not at all to themselves, nor their preservation: I see some of them that meet with other Bodies, the encounter whereof must in all appearance destroy them: I see even some of them quit the food they need, and the places that shelter them from what
may

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may be noxious to them, to run thither, where their destruction is in a manner certain : And that makes me reasonably presume, that in such occasions they may be guided by somewhat, that is very differing from themselves. For when I see, that they approach resolutely to what is destructive to them, and abandon what may preserve them, I cannot ascribe those effects to this Mechanical proportion or agreement, that is between them and the Objects : And since I have often noted, that notwithstanding the bent my body hath towards certain things, and that in spite of the force, wherewith its structure makes it avoid others, I have yet a will *contrary* to its natural disposition, which makes it often to be transported after a manner quite differing from that it would be, if it follow'd nothing else but the disposition of its organs, and the force which the objects exercise upon it ; I can hardly keep my self from believing, but that the motion of all the Bodies, that resemble mine, depends from a will like mine.

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In a word, I can scarce doubt of it; when I reflect on the chain of many of their actions, that have no relation at all to what can preserve them; and above all, the connexion, I find between the *Words*, I hear them utter at all times, seems to demonstrate to me, that they have *Thoughts*. For although I do very well conceive, that a meer Engin might utter some words, yet I understand at the same time, that if the organs, which should distribute the wind, or open the pipes, whence those voices should issue, had a certain settled order among them, they could never change it, so that when the first Voice were heard, those that were wont to follow it, would needs be heard also, provided the wind were not wanting to the Engin; whereas the words, which I hear utter'd by Bodies, made like mine, have almost never the same sequel. On the other hand I observe, that those Words are the same, which I would use to express my thoughts by to other subjects, that should be capable to conceive them. Lastly, the more I observe the effect,

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effect, which my words produce, when I utter them before those Bodies, the more methinks that they are understood: and those, which they utter, answer so perfectly to the sense of mine, that there appears not any more ground to doubt, but that a soul performs that in them, which mine doth in me.

Notwithstanding, in pursuance to that firme resolution, I have taken to admit nothing in my belief, but what shall appear evident to me; after I have considered it enough, not to need to fear, I deceive my self; I will more seriously than ever reflect upon all what serves for *Speech*, since that is the surest way, I have, to know, whether all the Bodies, which so perfectly resemble mine, are indeed Men as I am.

The first, which seems to me worthy consideration, is, that there are many Bodies, that can cause a noise by impelling the Air, and that that noise may be different, according to the different concurrence of Bodies, or the diversity of their parts: In which regard it so far,

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there should be need of supposing Souls in Bodies to produce that effect, that on the contrary I know, that the Noise not happening but because the Air is impelled, the cause of it cannot rationally be imputed but to what is capable to impel it, that is, to a Body.

I know also, that by the aid of *Mechanicks* one may so fitly adjust certain Bodies to one another, that they shall be able to compose instruments capable to make agreeable sounds, and even to imitate the Songs, which I have sometimes used to express grief or joy.

I know further, that Rocks and other like Bodies can make us understand not only Sounds, as Musical Instruments do, but also Words perfectly articulated. 'Tis true, I know, that they form them not, and that, as they would repel a ball to him that should cast it on them, they do no more but send back the words to him that hath utter'd them, that is, they drive back to him the same air that was driven to them, without changing any thing in that impression; which maketh it carry the words so far from the
places,

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places, where they are pronounced, when there is nothing to stop them.

I conceive likewise, as I have already said, that *Art* may go so far as to frame an Engin, that shall articulate words like those, which I pronounce; but then I conceive at the same time, that it would only pronounce those, that were design'd it should pronounce, and that it would always pronounce them in the same order.

So that I ought not hastily to believe, that whatsoever can make a Noise, render a sound, form voices, or pronounce words, hath *Thoughts*; and I ought, above all, to take notice, that the wonderful Workman, to whom I owe the structure of my Body, hath so mechanically disposed and order'd all the parts, and principally those that serve for the voice, that to form it I need no Soul: The sole motions of the Muscles, the Breast and the Diaphragme can make the Air enter into my Lungs, or let it out; and the only scituation of the Cartilages of the *Larynx*, diversly changed by the small Muscles which serve to move

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them

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them, may be the cause of a thousand sharp or grave sounds, sweet or shrill, piercing or weak, according to the different flexures, the air receives in that passage.

I ought also to consider, that when I articulate divers words, it is only because that the Air, which is already let out of the throat, is diversly agitated, according as the Muscles of my Tongue move the same either upwards or downwards in my mouth; or else because being near to get out, it is agitated according to the different ways; in which my Teeth or my Lips can apply themselves to one another by the motion of *their* Muscles.

Besides I must consider, that the Muscles, which serve to move all those parts, are not moved themselves, but according as my *Brain* is agitated, and that that can be so, a thousand different ways by the *Organs of Hearing*; my soul having no other part in all those motions, but to perceive the effects thereof.

Lastly, I am to take notice, that there

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is so great a communication and correspondence between the Nerves of the Ear, and those of the *Larynx*, that whensoever any sound agitates the Brain, there flow immediately spirits towards the Muscles of the *Larynx*, which duely dispose them to form a sound altogether like that, which was just now striking the Brain. And although I well conceive, that there needs some *time* to facilitate those motions of the Muscles of the Throat, so that the Sounds, which excite the Brain the first time, cannot be easily expressed by the Throat, yet notwithstanding I doe as well conceive, that by virtue of repeating them it will come to pass, that the Brain, which thereby is often shaken in the same places, sends such a plenty of spirits through the nerves, that are inserted in the Muscles of the Throat, that at length they easily move: All the cartilages, which serve for that action, as tis requisite they should be moved to form Sounds like those, that have shaken the Brain.

Thus it is not enough, that Bodies
make

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make Sounds, form Voices, and even articulate Words like those, by which I express what I think, to perswade me, that they *think* what-ever they seem to *say*. For example, I ought not be so rash as to believe, that a *Parret* hath any *thought*, when he pronounces some *Words*: For besides that I have observed, that after having repeated to him exceedingly often the same words in a certain order, he never returneth but the self same words, and in the same coherence; It seems to me, that since he does not make these returns to purpose, he imitates men less, than Echo's doe, which never answer but what hath been said to them; and if there be any difference between Parrets and Echo's, it is, that *Rocks*, tossing back the Air without changing at all the impressions, it hath received, render the same voices, that have struck them; whereas *Parrets* form another voice like that, which hath struck the ear, and often repeat words, which are said to them no more. But in short, as I cannot say, that *Rocks* speak, when they return words,

words, so I dare not affirm, that Par-
rets speak, when they repeat them.
For it seems to me, that to *speak*, is not
to repeat the same words, which have
struck the ear, but to utter others to
their purpose and suitable to them. And
as I have reason to believe that none of
the Bodies, that make *Echo's*, do *think*,
though I hear them repeat my words,
seeing they never render them but in the
order, I utter'd them in; I should by
the same reason judge, that *Parrets* do
not think neither.

But not to examine any further, how
it is with Parrets, and so many other Bo-
dies, whose figure is very different from
mine; I shall continue the Inquiry,
which I need, to know the *inward* con-
stitution of those, who resemble me so
perfectly *without*; and for that purpose
I think, I may, after the disquisition I
have been making of all what causeth
noise, sounds, voices, and words, establish
for a Principle,

*That if the Bodies, which are like
mine, had nothing but the facility of pro-
nouncing Words, I should not therefore
be-*

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lieve, that they had the advantage of being united to Souls: But then, if I finde by all the Experiments, I am capable to make, that they use speech as I do, I shall think, I have infallible reason to beleive that they have a soul as I.

To make this examen in such an order, as leaves me no suspicion at all to have deceived my self, I must consider before all, what I mean by SPEECH. To *speak* (in my opinion) is nothing else, but to make known what we think to that creature which is capable to understand it. And supposing that the Bodies, which resemble mine, have Souls, I see, that the only means to expresse to one another what we think, is, to give to our selves external signes thereof.

But, me thinks, I have found, that there are many signes common to them and me, by which we understand one another: for seing that they answer to my signes by other signes, which give me images agreeable to what I think, I do not believe I am deceived, when I perswade my self, that they have understood

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stood my thought, and that the new thought, which their signes have excited in me, is really that, which they have.

Moreover, I see, I can agree with some of them, that what commonly signifies one thing, shall signifie another, and that this succeeds so, as that there are none but those, with whom I have agreed about it, that appear to me to understand what I think.

Whence I conceive, that those signs are of *Institution*, and as that *Institution* necessarily supposeth reason and thoughts in those, that are capable to agree about it, I should, it may be, advance nothing rashly, if I now affirmed, that those Bodies are united to Souls.

But that, which might trouble me here, is, that if there be signs of *Institution*, I think, I know others, that are altogether *natural*. For example, all those, by which I express my passions without any design to do so: Thus a smiling Meen, and certain motions of my eies, or of the other parts of my Face,

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Face, make me often consider, when I consult with the Looking-glass, that if others saw me, they would know my sadness, my joy, or the other passions stirring in me: And that, it may be (If those bodies resembling mine, have Souls) is the surest means to discover to them the different constitutions of my Soul.

Yet, if I take good heed, I can render those signs very deceitful. For I find, that though naturally I appear outwardly chearful or sad, when I am so indeed, yet I have the power to constrain the motions of my face and eyes, so as to make them have an Air quite differing from that, which they would have, if I left their motions free: Which gives me to understand, that though naturally certain motions of my face, and even of my whole Body have been joyn'd to some of my *thoughts*, yet this conjunction is not so necessary, but that I can sometimes alter it, by joyning those thoughts to other motions. And though indeed, that give me much pain, yet I conceive, that

that as we may form an easy habit of what at first appears very difficult; I could also render these changes easy enough to me.

But, what I am most of all to observe here is, that, although it be very convenient, that, as long as my Soul is united to my Body, (for the conservation whereof she hath divers passions) her joy, her sadness, her desires, or her fear be alwayes joyn'd with the motions, which the good or ill disposition of that Body can beget in the Brain; as also that that correspondence which is between the parts of the Brain and those of the Face or Eyes, and all such as are external, be the cause, that what is *within*, may never change, unless there be marks of it *without*; yet notwithstanding, since those *exteriour* marks have no necessary relation but to the changes of the Brain, and that the sole condition of the Body may be the cause thereof; it might happen, that though the Bodies, which resemble mine, should not be united to Souls, that yet they would have the same motions of eyes and

and face, which I often perceive in me, according as they should be well or ill dispos'd within; so that those external signes, so like in those Bodies and mine, are not alone an infallible argument, that those bodies are endow'd with Souls.

Further, since those motions of the face and eyes, and even those cries, that are never wanting, when nothing constrains them, to follow the different conditions of the Body by reason of the relation, there is between all the parts thereof, may very properly be call'd the *natural signes* of the State, the Body is in; I shall be careful to forbear, when the eyes and face, or even the Cries of those Bodies. shall not appear to me excited but by the objects, that may benefit or hurt them, to believe, that those external motions are the signs of any *Thought*.

But yet, when I shall see, that those Bodies shall make signes, that shall have no respect at all to the state they are in, nor to their conservation: when I shall see, that those signs shall agree
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with those which I shall have made to express my *thoughts*: When I shall see, that they shall give me *Idea's*, I had not before, and which shall relate to the thing, I had already in my mind: Lastly, when I shall see a great sequel between their *signes* and mine, I shall not be reasonable, If I believe not, that they are such, as I am.

Thus I have no more cause to doubt concerning this point; for I have many a thousand like tryals, and I have not onely seen a great connexion between their *signs* and my *thoughts*, but I have also found so great an one between their *signes* and mine, that I can doubt no longer of their *thoughts*. And if the power, I have to hinder, that the exterior motions of my face, and the other *signes* of my passions may not express them, hath been one of the reasons, I have had to acknowledge, that my *thoughts* were very different from the motions, that are wont to accompany them; I can now assure, not onely that those other Bodies, which resemble mine, have *thoughts*,
but

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but also, though they can, as I myself, not let them alwaies be *so* joyned to the morions, which use to signifie them, that one ought alwaies to trust them; Yet I have found, that they knew the art of constraining themselves, and frequently after many signs on their side, and mine, which shew'd me that they understood my thoughts, and made me believe that I understood theirs, I perceived, they had a design to deceive me.

Now then, since I may doubt no longer, that the Bodies, which resemble mine, are united to Souls, and in a word, since I am assured, that there are other men besides myself, I think I ought carefully to inquire into what remains to know of *Speech*.

Hitherto I have discours'd of it but in *general*, and said only, that *To speak* was to give signs of one's Thought: But in regard that the little reflexion, I have made on these signes, hath already discover'd to me so important a truth, and that I also see, that those
same

same signes are the only means to entertain Society amongst Men, which is the greatest good, they have in this World, I intend as much as I can to observe the different sorts of them together with their properties, and to endeavour to discover all the wonders of them, to learn all their uses.

One of the chief things, I finde worthy of consideration touching these *signs*, is, That they have not any resemblance to the *Thoughts*, which men joyn to them by *institution*. And indeed, whether we express our thoughts by *gestures*, by *discourse*, or by *characters*, (which are the three sorts of the most used *signs*, by which we manifest our *thoughts*) we cannot but see (if we consider it with some attention) that there is nothing less resembling our *Thoughts*, than is all that, which serves us to express them. For, when a man, to declare that he agrees not with me in such or such a thing, is shaking his head, and when the better to express it, he moveth his throat, tongue, teeth and lips, to form words,

or

or takes paper and with a pen trace characters to write it to me. I see little resemblance betwixt all those motions of the Head, of the Mouth, or of the Hand, and what they teach me that I cannot enough wonder how they *so easily* give me the understanding of a thing, they *so ill* represent.

But what is most admirable herein is, That this vast difference between those *Signs* and our *Thoughts*, doth by marking to us *that*, which is between our Body and Soul, teach us at the same time the whole Secret of their Union. At least methinks, that that strict union, which the sole Institution of men is able to settle betwixt certain external Motions, and our Thoughts, is to him that will consider it, the best means to conceive, wherein in truth consists the Union of the Body and the Soul. For certainly, if we do conceive, that men can by *institution* joyn certain Motions to certain Thoughts, it cannot be hard to conceive, that the Author of Nature, in forming a Man, so well unites some Thoughts of his Soul to
some

some motions of his Body, that those motions cannot be raised in the Body, but the thoughts must also be forthwith excited in the Soul, and that reciprocally as soon as the Soul will have the Body move after a certain manner, it be so at the same time.

For the rest, 'tis evident, that from this so necessary relation, which the Author of Nature maintains betwixt the body and the soul, it is that that necessity of making Signs to express our thoughts hath its rise. For, seeing the Soul can have no *thought*, but at the occasion whereof there will be made a *motion* in the Body, and that also she cannot receive any *Idea* of what is *without* but by the motions excited in the Body, which she animateth; it must needs be, that two Souls united to two different Bodies do express their thoughts by *Motions*; or, if you will, by outward *Signs*. But to know perfectly, how that is done, there needs, in my opinion, to be made but a little reflexion on what I have already observ'd about the principal differences of Signs, on the particular

ricular cause of each, and on the reasons, men have to use them.

And first, if it be true, that certain motions of the Face, and certain Cryes do naturally follow certain conditions of the Body by vertue of the relation, which is between all the parts thereof, we must believe, that the thoughts, which are naturally joyn'd to those motions of the Face, and to these Cryes, are the passions, which the Soul suffers at the occasion of the State, the Body is in; so that if a man hath well observed his Eyes, his Face, and all the outward parts of his Body during the time he hath been in certain passions, he hath been able, seeing the same motions in another man, to Judg, that that man felt the same passions: 'Tis true, if at times he hath been so dextrous as to constrain himself in the like state, he may have learn'd to mistrust those signes; but still 'tis manifest, that they are naturally proper to declare passions, and that the best means to make one understand what the Soul suffers, is, not to constrain

to restrain the Face, the Eyes or the Voice; 'tis the most natural way to express our thoughts; 'tis also the first of all the Languages, and the most Universal that is in the World, since there is no Nation, but understands it.

There are two other ways to express not only the Passions of the Soul, but also what ever she conceiveth, *viz.* Speech, and *Writing*; which, to speak truth, are but one and the same thing. For, men having observ'd, that they could form different *Voices* or different *Letters*, did agree, that the *words* or the *Letters* should signify *Things*, and they express'd themselves by the one or by the other of those ways, according as it was more convenient to the State, they were in; if they were absent, the *letters* which remain after they are drawn were more convenient for them, because they could be carry'd where a *voice* could not; but if they were present, words utter'd seem'd to them a more facil way to express themselves; and lastly, if there were some, that had not the freedom

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of the voice, he might by Characters expose to the Eye the Signs of his Thought: So that if there be any real difference 'twixt *Writing* and *Speaking*, 'tis, that in *Speaking* we make use of the *Voyce*, and in *Writing* of *Characters*, which 'tis true, are very differing signs, but in both we express our selves by things external and corporeal, which by *institution* are made to signify what we think; and that in general is what we call *Speaking*.

This being so, there is no man, that may not conceive, that one can learn a Language, or a way of Writing, and that one may even *invent* them. For it is evident, that whether we learn them or invent them, we do nothing else but agree, that certain *Characters* shall signify certain thoughts. It appears also that if there be a difference between learning and inventing them; it is, that in *learning* them, we onely furnish ourselves with the signes, already agreed on by other men, but in *inventing* them we are *Masters* of the Institution, which maketh that the *Words* or *Characters* signi-

signifie rather one thing than another: And by this means it is, that almost all the Nations have made to themselves different Languages.

But as 'tis easie to conceive, how men that speak one and the same Language, may agree amongst themselves about the means of inventing new ones; I shall stay a while to consider, how a person that hath no knowledge at all of the Language of a Country, may learn it, though those of that Country should know nothing of his.

For that end I conceive, that applying himself at first to know the names of the things, most necessary for *him*, he should attentively hearken to all that should be said by those, who should hold in their hands, or shew any of those things; and the word they should repeat oftneft in speaking of that thing, being most likely the name of it, he should, when he pronounces that word, at the same time, to obtain the thing, use some sign to manifest he had need of it; and if, making that show, and and giving to understand his need, he

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should

should not name it aright, men would not be wanting to tell him the right name of it; so that he might by the like informations in a short time know the name of many things, and how little wit soever he had, observe, above all things, the words that should be repeated to him oftneft, by answering to divers questions, he should make of the name of the things, by pointing to them. For, in all appearance, the words, that should be found in all the answers nearest the name of every thing, would signifie, *That is called, or named*; so that he would have no more to do but to repeat *them*, for the making of new questions.

When he shall have learnt by this means the names of many things, he might then, according as those things should be beneficial or hurtful, observe the words, which those, who should manifest they were affected with them, should use to exprefs what they meant by them, and by this way learn the words, which signifying the *qualities* are alwayes added to those, which sig-
nifie

nifie the things, to which those qualities belong.

Next, when he shall see done certain actions, *e.g.* of mounting, descending, going away, and coming, he might ask, *How that was called*, and when he shall know words enow to form discourses, wherein he might mingle *Verbs* with *Nouns*, that is to say, what he thought concerning the things and their actions, he could then make himself to be understood, though he should as yet speak improperly as to the words and the construction.

But to see, that that is not impossible, we need only to consider, that such a thing must often happen to Travellers: And should not *Men of age* find means to make themselves to be understood in a Country where they come, since *little Children* find them to learn the language of the Country where they are born? They bring nothing with them into the world, but what Nature gives to all men, to express pain, joy, or other passions: Mean while, *that* suffices them; and how little time soe-

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ver they have lived, they so well study the looks of their Nurse, that she can make them weep or laugh, by only looking on them. Thus they easily know the passions of those that come near them, by the external motions, which are the natural signes of them.

They are somewhat longer to understand the *signes*, that men have *instituted* to signify things; but the need they have of some of them, renders them so attentive to all what is said of those things, when they perceive that they are touched or shewn by the hand, that at length they learn the name of it. 'Tis true, that ordinarily we endeavour to excite in them some passion (as joy) by some cry, which accompanying the shew that is made to them of the things at the same time, when we tell them their names, maketh that they are more attentive to them, and by being more affected with them by this means, they retain them the better.

But in the taking pains to teach them certain things, we often perceive, that they know the names of a thousand other

other things, which we designed not to shew them : And what is most surprising therein, is, to see, when they are 2. or 3. years of age, that by the sole force of their attention they are capable to find out in all the constructions which are made in speaking of one and the same thing, the name, we give to that thing.

They learn after this, with the same application and discerning, the words which signifie the qualities of the things of which they know the names.

At last, extending their knowledge farther, they mark some actions or motions of those same things; and observing at the same time those that speak of it, they, by virtue of their attention, and hearing repeated the words, which are mixt with the names that signifie the things or their qualities, distinguish those that signifie action.

Thus a child of a strong and vigorous temper, seeing a Horse that runs, seems to have a mind to fly after it, those that intend to divert him, often asking him, Whether he seeth the Horse : And be-

cause perhaps that word would be too hard for him to pronounce, in regard that Children do better pronounce all the words, that need only the Lips or the Gums to be well articulated, they give him a name convenient for it ; and when by the effect he maketh to get to the Horse, he is come near the pronunciation of that word, he is led near the Creature, which he is made to flatter, by saying 'tis a fine, a good Horse : which is often repeated as long as it suffers it self to be thus caress'd. But if the Horse begin to stir or snort, which may make one fear it might hurt the Child, those that have a mind to take the Child away from it, presently say, 'tis a *naughty* Horse : And if that Child, when 'tis carried away, expresseth by crying it would stay, those that hold it, fain a kind of fear, of which the Child knowing the outward signes in their looks, feels presently the like motions, which maketh it be contented to be removed from the Horse : And whereas during all that while the word *naughty* is often repeated with demon-

strations

strations that make the Child more attentive, it conceiveth what this new word means, remembers it, and often repeats it his own way, so that, if after such lessons the same Child sees an Horse, it will repeat the word, which signifieth to him that *Animal*, and if in his approach to it he finds it gentle and content to be stroaked, he names at the same time the word that signifieth an *Horse*, and that which signifieth its *gentleness*; but if it prance, the fear which the Child will have of it, will make it strive to get away, and to name the word *naughty* as well as it can, after that which signifieth an *Horse*, without tying these two words together by any *Verb*, that denotes any action.

I shall here mention on the by, that 'tis likely, that those who made the *Elements of the Grammar*, made the like Observations. As the whole art of their method could not be deduced but from the Nature it self, they must needs have considered, how Children learn to speak; and I see that indeed *their precepts* are nothing but an Imitation of

those which Nature gives to Children.

First, *Grammarians* teach the *Words*, that signify *things*, which they call *substantives*; then those that signify *qualities*, which they call *adjectives*; and till they have well distinguish'd those two *names*, they teach not the words that signify the *actions* of things, which they call *verbs*: wherein they follow also the sons Nature gives to Children, who, as far as we can observe, do not apply themselves to hearken to the words which signify the *actions* of a thing, but when they already know the name of the *thing* it self, and that of the *qualities*, which makes that thing please or displease them: for 'tis alwayes according to this agreeableness, that they learn one thing rather than another.

And to explain that by the same Example, which I have already begun to make use of; when the Child, whereof I have spoken, knows well the name of the Horse, and the names of the qualities, that make it please or displease him, the desire which it naturally hath

Child hath to extend its knowledge causeth it to observe the actions of the Horse when it sees it; and if at times we perceive, that following the *impetus* of its temper, it gives signs of joy, when it sees the Horse run, we shall then say with such out-cries as commonly do accompany Joy, and by moving the Child in a manner like that the Animal moves in, that the *Horse runs*; and this often repeated will make the Child conceive the word which expresses that *action*, insomuch that it will not fail to joyn the word, which signifies the *Horse*, to that which signifies its *action*.

We might, pursuing of the same example, shew, how a Child learns at length to speak a whole language; but 'tis sufficient to have exactly observed the beginnings of it, it being easie to understand the sequel thereof. That which is only to be noted here, is, that it requireth much more time to teach them the power of *Adverbs*, than the words that signify *substances*, *qualities*, and *actions*; because it concerns not so much their conservation to know that
more,

more, or *this less*; that *excess*, or *this defect*, which are express'd by the *Adverbs*, that are joyn'd to *things*, *qualities* or *actions*, as the *things*, *qualities* or *actions* themselves do.

It may also be consider'd, that when they begin to take notice of *the more*, *the less*, of the *excess* or *defect*, they commonly express it by some motion, or some pointing at bigness, smalness, according as things touch one another strongly or slightly by their qualities or action.

'Tis the same with *Conjunctions* and other *particles* invented to connect things, or to separate them. For, Children use them but seldom, and late; because they, following nature altogether, believe to have express'd the thing and its quality, when they have put the two words, that signifie them, to one another.

And the same a Child does as to the *action*, which he expresseth by putting the word, which signifieth it, next the name of the thing, without being yet able to discern that preciseness of the
times,

times, or to observe that diversity of terminations, which applying the word, that signifies one and the same action, to divers persons and divers times, formeth *Conjugation*.

We might also shew, how a Child comes to know the *term* of actions; and lastly we might draw from the natural order, wherein Children learn to speak, notions to judge, which of all the Languages are the most perfect: For doubtless those which we should find in their ordinary constructions to follow most that *natural* order, should pass for the most perfect.

But since I only look here after the *Principles*, I am not to proceed so far to *particulars*. I desire only, that by the way an important truth may be taken notice of, which this example of Children evidently discovers to us, *viz.* That from their birth they have their reason entire; because indeed this way of learning to speak is the effect of so great a discerning, and of so perfect reason, that a more wonderfull one cannot possibly be conceived.

If

If in the sequel of age they appear without conduct, and almost without reason, it is to be consider'd, that 'tis the knowledge of affairs, and the matters they are to reason upon, which they want, rather than reason. To which may be added, that the Customs of the World, which make up all the wisdom of it, are often so contrary to what Nature, well order'd, would exact from men, that those who are born, need to live many years, to learn things so remote from what Nature teacheth. But alwayes 'tis manifest, that the Reason of Children is entire from the beginning, seeing they learn perfectly the Language of the Countrey where they are born, and that in less time than Men of age need to learn that of a Country, where they should chance to travel, and not find any body that understood theirs.

By this time it is not difficult to conceive, why 'tis so easie for us to learn a strange Language of a person that understands it, and understands also ours: For then we can easily enquire after the
name

name of every thing. By this means also we may learn many Tongues, it being obvious, that after we have learnt the word, which signifies a thing in *French*, we may also learn, by what words the *Italians*, the *Spaniards* and other Nations express that thing. And what is remarkable, is, that when we have once agreed, that many words shall signifie one and the same thing, we so well joyn the *Idea* or the thought of that thing to each of those words, that often we remember very well that the *Idea* of it hath been given us, without remembring which of all those words was employ'd for it: whence it comes to pass, that when we are in company with persons of different Countries, whose Tongues we understand, we easily retain every news, and all what was said upon the matters, that were spoken of, without remembring just the words nor the Language that was made use of to give us those images, which remain of them in us.

This also shews very clearly, methinks, the distinction there is between
our

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our *Thoughts*, and the *Words* whereby we express them : And as the principal end, for which I designed this Tract, is to shew this *distinction*, so I think I am not to omit in this place another Consideration, which, in my opinion, maketh *that* so evident, that 'tis not possible to doubt of it.

And that is, that when a man speaks in publick, and hath for his Auditors many persons of different Nations, the sense of his words is not apprehended but by those, who know the Language he useth, although the sound of his words do equally affect all the rest. But if the Soul were not distinct from the Body, and if *Thoughts* were not distinct from *Motions*, it would happen, that when the Brain of many persons should be affected in the same manner, they would all think the same thing at the same time, because they equally have what in that matter depends from the Ear and Brain. But because all have not agreed in this, that certain motions of those parts should signifie certain things, nor have joyned them to the images they

they have of them, it happens, that one speaks fruitlessly of those things before them, and that they understand them not, though the words, employ'd to express them, strike their Ear and Brain, as they do the Ear and Brain of those that understand them.

The same thing may also be seen in those that study any Language. They often know in one instant the signification of a word, but know it no more in another; and yet they well remember the word; and they have also the image of the thing, which it is to represent to them; but they have not yet so well joyned the one to the other, that that image returns to their mind, when the word is pronounc'd which signifieth it.

Although I am perswaded, I have hitherto said nothing but what is grounded on principles clear enough to leave no doubt, and that possibly they might be sufficient to deduce other consequences from them, which might also discover to us some truths important enough; yet notwithstanding I believe,
that

that to clear up fully what remains to be said, and even what hath been said already, it will be fit, before we proceed, well to discriminate all what is found in *Speech* as depending from the Body, from what there is in it, as depending from the Soul; and then to consider what it borrows from their Union.

Upon the account of the Body in him, that forms the Voice, it is to be consider'd, that he hath *Lungs*, into which the Air enters by the Wind-pipe, when the Muscles of the Breast distend all the sides thereof by their motion, just as Air enters in a pair of Bellows at the end, when 'tis expanded by separating the two sides thereof.

We are also to conceive, that as the wind, which issueth out of Bellows, when they are closed, would be capable to thrust the Air as many different ways, as we should put different pipes at the place where the wind comes out; even so the Air, which issues out of the Lungs, when the Breast subsides, is diversly thrust, according as the Entry of the Wind-pipe is differently disposed; which

which I enlarge not upon, because I suppose, that 'tis generally known, that besides many small gristly rings, serving to keep the sides of the membrane, which forms that channel, by which the Air enters into and issues out of the Lungs, from approaching one another too near; there are three considerable ones, whereof one can shut it self so close, that when it is in that position, the Air cannot get out of the Lungs but with a great force; And sometimes also it can so enlarge it self, as that the Air may issue out very easily. But as between the greatest and the smallest Aperture, of which it is capable, here is an infinite diversity of other Apertures, of which every one makes a different impression on the Air, we are not to think it strange, that the Air which comes out of the mouth, is able to make so many different effects.

I suppose also, that every one easily conceives, that the *Cartilage*, which serveth to modify the Air, is not destitute of the muscles, that are requisit to open it, to shut it, and even to keep it

in certain positions, as there shall be need to make one and the same sound last. These Muscles are disposed in so wonderful an order, that 'tis not possible to see it without admiration. The other two *Cartilages* have also their Muscles, and all things are so well ordered in that place, that one may raise or depress that Entrance, and open or close it, and that either slowly or swiftly, yet so that the motion of the small muscles, which serve for some of those actions, be not hindered by the motion of those, that serve for others: Which informs us, that 'tis from the sole disposition of that place of the *Wind-pipe*, that the difference of the sounds depends.

And 'tis to be observ'd, that if there were but that part, there would not be any difference betwixt the sounds, it would make, and those of a *Flute*, that is, it would make only uncertain sounds, and no voices: but to give them a certain determination, the *Mouth* is so fashion'd, that these sounds coming to be tun'd, receive different terminations according to the different wayes it opens.

If

If for example you open the Mouth as much as you can in crying, you cannot form but a voice in A. And for that reason the Character, which in writing denotes that voice, or termination of the sound, is called A.

If you open your mouth a little less, advancing the lower jaw towards the upper, you'll form another voice terminated in E.

And if you approach yet more the jaws to one another, yet without making the Teeth touch, you'll form a third voice in I.

But if on the contrary you go to open the Jaws, and at the same time draw the Lips together at the two corners, the upper and the lower, yet without quite shutting them, there will be form'd a voice in O.

Lastly, if you approach the Teeth, yet without quite joyning them, and at the same instant put out both the Lips by approaching them again, without quite joyning them, you form a voice in U.

It is so easie to conceive, how the motions that are given to all the parts
of

of the Mouth in each of those formations of voices, being mixt, there may be form'd voices, the termination whereof shall be Intermediate between two of those five voices; that I shall not stay to examine how these middle or compounded Voices are form'd, which are called *Diphthongues*.

But I believe 'tis necessary a little to examine, how those motions of the Voice are made, that make those different *Articulations* of it, which in writing are expressed by the Characters called *Consonants*.

Some are articulated by the Lips only; thus when we joyn our Lips without joyning the Teeth, we cannot form the voice A, but in disjoyning the Lips in such a manner, as makes us articulate the Syllable *Ba*, whereof the last letter expressing the termination of the Sound, that is, the Voice, is called *Vowel*; and the first, which marketh the manner how this voice is articulated, sounding together with it, is called *First Consonant*. Whence, by the by we may see, that often the Voice may be good, without being

being well articulated : For, the Lungs, which thrust the Air, and the entrance of the Wind-pipe, may be so well disposed as to make the Voice very agreeable and pleasing ; but in the same person, who shall have that advantage, the other parts of the Mouth may be so ill disposed, that not being mov'd with ease, nor corresponding the one to the other with an intire justness, the Voice shall not be well articulated.

What is said of B. with the Voice A. may be said of the same *Consonant* with other *Voices*, without any difference in the articulation, which beginning alwayes with disjoyning the Lips is alwayes the same, and receives not its different termination but from the different site, which the parts of the Mouth put themselves in, to form those different *Voices*.

The *Consonants* P, and M. are formed as B. by disjoyning the Lips ; but with this difference, that the Lips are to be only joyned to pronounce B. by opening them ; but they must be more strongly closed and drawn inward to utter

utter a P ; and yet more closed and more drawn in, well to pronounce an M.

The Letter F. is utter'd by joyning the under-lip to the upper-teeth, where as the former Consonants are form'd by joyning both Lips together.

The Consonant V. is pronounced as the Letter F. with this difference, that you do more press your Teeth against the Lip for the Letter F, than for the Consonant V.

The Letter S. is pronounced by approaching the Under-teeth near enough to the Upper-teeth, and the Tongue near enough to the Palat, not to let the Air pass, which is getting out of the Mouth, but by a kind of whistling: And the Letter Z. is pronounced after the same manner, only with this difference, that for Z. we leave a little more space to the air, by not approaching so much the Tongue to the Palat, and by so extending it that it may nearer approach the Teeth, than in the pronouncing of S.

D. is utter'd by an appulse of the top of the Tongue to the Gums of the upper-teeth; and T. by striking with the

the top of the tongue against the place where the upper and lower teeth joyn.

As for the letter N. it is form'd by striking with the top of the tongue between the palat and the upper part of the teeth: And R. by carrying the top of the tongue to the upper part of the palat, so that the tongue being shaken by the air issuing forcibly, yields to it, and often returns to the same place, as long as one will have this pronunciation to last. And the letter L. is utter'd by carrying the top of the tongue between the place, where the letter N. and that, where R. is form'd.

G. is pronounc'd by a gentle appulse of the middle of the tongue to the inward extremity of the palat; and K. by its appulse to the same place with a little more force.

As to X, it is a pronunciation compounded of S. and K. For C, it may be said, that 'tis often pronounc'd like S. and frequently like K. The letter Q. is also pronounc'd like K.

Lastly, the J. ~~consonant~~ is pronounc'd by carrying the middle of the tongue

D

towards

towards the interiour extremity of the palat, with less force than in G, when 'tis pronounced with an A, or O, or V. For CH, it is a pronunciation of C joyn'd to a gentle aspiration; so that the syllable *Ga*. comes from the bottom of the Throat; the syllable *Ka*, from somewhat more forward; the syllable *ʃa*, from a place a little nearer the middle of the palat, and the syllable *Cha*, from the very middle of the Palat

I do not examine, why some pronounce certain consonants better than others. For 'tis obvious, that the facility or difficulty of pronouncing comes only from the disposition there is in the parts of the mouth, insomuch that if the muscles of some of them be well disposed, and those of others not, we shall pronounce the Letters well, where we have need of the motion of the parts, that are in a good disposition; and we shall pronounce ill those, where we have occasion of the motion of parts, that are disposed ill. Thus little Children will pronounce better the B. than P. D. and some others, where we need only the lips

lips or some teeth, or the top of the tongue, than those letters, to pronounce which there is required the use of the middle of the tongue, or where 'tis necessary to redouble the tongue to the height of the palat, as the letter R; because the humidity of their Brain maketh their tongue too thick: whence we are wont, in speaking to them, to alter the name of the things which they knew first, when there are letters which they cannot pronounce; and that amongst Us, we mark to them their Father and Mother (*Pere & Mere*) By words, of which the Consonants are easie, being pronounced by the lips and teeth, or by the tip of the tongue.

After we have taken notice as much as was necessary, How *Sound* is form'd; How 'tis terminated into Voices; and How articulated into syllables by him that pronounceth (to consider nothing but the *Body*;) We are now to examine the effect it produceth in the *Ear*, it striketh, and in the *Brain*, it shaketh.

In regard that the *Anatomy* of the *Ear* is a thing commonly known, and

that 'tis sufficient for every one to be persuaded in the general, that it is an Organ dispos'd to receive the air, when 'tis propelled by Bodies, which by touching one another drive it from betwixt them, or repelled by hard Bodies, or issuing out of the Lungs of an Animal; I shall make no description of it: I desire only it may be observ'd, that as many different shakings there are in the Air, so many different sorts there are of its passing into the Ear, and that according to those diversities it causeth a different agitation in the Membrane (stretch'd out in the bottom of the Ear) and in the Nerves answering thereto.

It may also be judged by what we know of the construction of Animals, even of Beasts, that according as the Agitation of the Nerves of the Ear is different, the Brain must be agitated in different parts; and likewise that 'tis alwayes according as those different parts are agitated, that the spirits are differently distributed into the members.

But all that is perform'd by a necessa-

ry sequel of the mechanical disposition of the whole Body of every Animal, and even of every Beast, which being of a certain kind, that is, made for one thing or another, hath all what is necessary to effect what the Author of Nature proposed to himself in forming it: It hath the Brain so adjusted (according to its temperament) for all what may conserve it, that if the Objects which can hurt it, move its Brain, 'tis always after such a manner, which maketh it to open in the places, whence the spirits may flow into the muscles, which serve to make it retire from those Objects; and if the Objects, which can benefit it, move its Brain, 'tis always in such a manner, as maketh it to open in the places, whence the spirits may be diffused into the muscles, which serve to make it approach to those Objects; so that if we suppose, that one and the same noise striking the ears of two Beasts of differing kind, do agitate at the same time their Brains, we are to believe, that that agitation being diversly made in each, and in different parts of

their Brain, according as that which causes the noise, shall be agreeable or contrary to it, it will also happen, that the course of the spirits being necessarily different in those two Beasts, one of them shall be carried far from the object, whilst the other approacheth to it. Thus the howling of a Wolf may make a Sheep fly, but at the same time bring to him another Wolf.

But 'tis necessary to observe here, that although the Art, whereby the Brain of Animals is composed, be infinitely varied, and that 'tis admirable herein, that according to their different conformations 'tis always found so artificially disposed, that those Creatures must necessarily and according to all the rules of the Mechanicks approach to what is naturally good for them, and retire from what is naturally noxious to them; yet it was not possible, that within the small compass of their Brain there should be so many differing springs, that they could have a proportion necessary, and always well suited to all sorts of Objects.

But

But instead thereof, their Brain is made of a substance soft enough, easily to receive new impressions, and yet consistent enough to retain those, which in some places thereof are made by certain objects, which being neither naturally good nor ill for them, do yet sometimes occasion considerable benefit or mischief to them; and frequently those traces, which at first were not in the Brain, remain there so well marked, that when the Objects, which caused them, present themselves, the places, keeping the impression, being more agitated by them than the other, diffuse thence such spirits into the muscles, as serve to carry the Animal nearer to or further from those Objects, according as they have been found beneficial or noxious to it.

Mean time, whereas there is much more danger for the Animal, to suffer the approach of the Objects, that can hurt it, than there would be in the not approaching those that might do it good: at the time when there is yet no impression in its Brain at the occasion.

of an Object, if then it happen, that from a noise that Object begin to shake the Brain of the Creature, it will never fail to fly; especially if the Air hath been agitated strongly, or in such a way that hath troubled the Brain,

I believe there is no body, that hath not often felt in himself the effects of this surprise, and experimented how much the Will, which the Soul then hath to keep the Body in certain places, is controled by this natural Disposition, which maketh all the Spirits and Muscles conspire together to transport it far from those places, where a noise is made; especially when 'tis so great, that the whole Body is threatned to be there destroyed.

Every one may also have found, what force the agitation made in the Brain by a noise not ordinary, hath to make the Spirits, without one's thinking on't, flow into the muscles, that serve to transport the Body out of the places where that noise happens.

But since this is not yet the place proper to examine, what the *Soul's* part is
in

A Discourse of Speech.

in *Speech*, we must, to finish the Observations of what she borrows from the Body for the formation of a Voice, call to mind a *Note*, I have already made, which is, that the same Nerves which answer to the Ears, have branches going to the Teeth, the Tongue, the Entrance of the Wind-pipe, and generally to all the places which serve to form or modify the Voice; so that, following Nature's Institution, the same shaking of the Auditory Nerves, which affects the Brain with the motion, caused by a voice in the Air, is also the cause, that the Spirits, which flow from the Brain into the Nerves of all the parts serving for the Voice, dispose their Muscles in a manner, which answering to the Impression made by the Voice in the Brain, puts them into a state to form a Voice altogether like it: And if it have been necessary, that the correspondence, which is between the Auditory Nerves and the Brain, should be such, that when it should be moved by the concussions of the air, that should be done in different places of it according

ding to the diversity of Noises, to the end that, following that diversity, the Spirits might diffuse themselves into the Muscles, that can carry away or stay the Animal, according as the causes of that noise are good or ill for the whole Body; It was no less requisite, there should be a sufficient commerce between the same Auditory Nerves, and those of the parts, that serve for the Voice, to bring it to pass, that when a voice should strike the ear, the Muscles of those parts might immediately be disposed as they ought to be, to form another perfectly like it.

And to manifest this necessity better, 'tis requisite to make two reflections. The *first* is, that if it concern Animals, to have their Brain shaken by the noise of certain Bodies, before they approach too near them, that so they may avoid them; it concerns them likewise to have their Brain moved by some other Bodies, to the end that they may be carried towards them, when they are remoter from them, than is requisite for their conservation, or conveniency.

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The *other* is, that as, (considering only each Animal according to its *species*) there's nothing more noxious to it, than those of a contrary *species*; so there is nothing that can be more beneficial to it than those of its own kind.

That being so, 'tis evident that nothing could be so useful as this communication, which is between the Ears and the parts serving to form the voice: For by this means the cry of one Beast shaking the Brain of another of its kind, it presently comes to pass, that not only it is carried towards that, which maketh the cry (according to what hath been said) but besides, the Muscles of its Throat do so dispose themselves, that it makes at the same time a like cry, and this new cry striking the Brain of that, which cried first, causeth the spirit to flow into the Muscles, which serve to carry it toward the second; so that they sooner meet, and may, according to the causes of the cry, that made them approach, draw from one another what may contribute to their conservation.

I very well know, that this necessity of forming cryes or voyces like those, that have struck the Ears, is not so universal, that it must so fall out always; and that there are two cases, wherein it happens otherwise even in Brutes.

The *first* is, when that Creature, whose Ear is struck, and whose Brain is agitated by a Cry, is not of *the same kind* with that which maketh the Cry. For we know, by what hath been above deliver'd, not only that the dispositions of the parts, which form the voice in Animals of different *species*, being altogether different, that cannot come to pass, but also, that what is the cause why a Brute makes a cry like that which is made by another of its own kind, is only that they may the sooner come together in cases of need, which they may stand in of one another.

The *other* is, that it may often happen, even among Animals of the same kind; that the Brain of the one is mov'd by the Voice or Cry of the other after such a manner, that it shall be more beneficial for that creature, whose Brain
hath

hath been mov'd by that cry, to have the spirits flow into other Muscles, than those which serve to make a like voice. For example, if a *Cock* makes that noise he useth to make, when he meets with a grain of corn, it may be, that that noise striking the ears of the Hens, will shake their Brain in such a manner, as shall make them run to the place where that grain is, without forming a voice like that which made them come thither : As also it may happen, that one Animal cries so, on the occasion of a dangerous object, as that it maketh all the other of the same *species* run away, without forming any cry like it. But as often as a Brute is not pressed by such necessities, which do alwayes strongest determine the course of the spirit in its Body, when its ear is struck by a Cry; that communication betwixt the Ears and the *Larinx* maketh, that from the same place, where the Nerves of the Ear have made a motion in its Brain, the spirits do necessarily flow into the Muscles of the *Larinx*, which disposing it in such a way, as is fuitable to the impression

pression of the Brain do make the Animal form a cry altogether like it.

Thence it comes, that *Birds* excite one another to sing : And in short, this commerce between the Nerves of the Ear, and those of the parts serving for the voice, is in *general* so much the cause of the noise, which most Brutes make, that (provided they are not in any urgent need) when their ears are excited by some noise, the impression it makes in their Brain, causes the spirits, that are not diverted another way, take their course to the *Larinx* to dispose it to make a like noise. And as the noise which hath shaken their Brain, cannot alwayes be imitated by the voices, which they are capable to make according to the natural conformation of their Throat, they often return such as are very differing. Hence it is, that *Musical Instruments* excite Birds to sing, yet their songs are so different from all that is play'd on such Instruments. But to shew, that that proceeds only from the little conformity there is between those Instruments and the disposition
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of the Throat of the Bird, which hinders the imitation, we find that as often as there is a proportion between their throat, and the voices that strike their Ears, they fail not to form at length such as are like them.

Thus *Linets* learn in time the note of *Nightingales*, the songs of other Birds, and what ever is play'd on Instruments; and they learn even, as *Parrets*, to pronounce some of *our* words, because they have the *Tongue* and *Beak* disposed to articulate them. If they be long in learning the songs of other Birds, or our words, 'tis because the Nerves, which communicate from their ears to the muscles of their Throat, Tongue, and Beak, cannot be so soon adjusted to those new ways of voices, as to cause their formation presently; but it appears at last, that from the time that those parts are capable to form those voices, they do actually utter them.

And we ought above all things to observe, that the change which happens in them when they learn, is, that their Brain being divers times struck in the same

same place by the same Songs, or the same Words, the impression thereof remains so strong in that place, that the spirits which thence issue to flow into the muscles of their Throat, Tongue and Beak, do at last dispose them to repeat those songs or words.

It is likewise to be well observ'd, that they never return the songs and words they have learnt, but when they are in no such need, which diverts their spirits another way; and if in those necessities they form a cry or voice, 'tis ever the cry or voice of their kind; so that they form not strange songs, nor utter human words, but when they want nothing, and when the spirits, abounding or much heated, run, without any diversion to their course, from the place of the brain, which those songs or words have most agitated, to the parts that serve for the voice; except great care have been taken to give them none of the food they needed, but at the time when some body did sing or speak near them: for then the presence of the food does not fail to excite them

them to repeat the same songs or words.

And to understand this well, we must conceive, that Brutes learn their cry from others of their kind, and that ordinarily the food is the cause of it. For their young ones, having at the same time their *Ears* struck by the cries, always made by their Dams at the presence of some food, which they have not yet the possession of, and their *Eyes* also struck by that food it self; it must come to pass, that the place of their brain which always receives those two agitations at once, gets thence in time such an impression made in it, that the spirits taking their course from that place to the throat and the muscles serving for the voice, must needs dispose them after such a manner, as answering to the impression of the brain, causeth those young ones to make a cry like that of their Dam.

But when they are brought up by men, and when *Liners*, for example, are bred in a Cage, and that instead of the cry of their Dam, it happens, that
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in the presence of the food, certain strange songs or humane words strike their ears; 'tis no wonder if those words or songs (making impression in the same place of the brain, whence that food should have made the spirits to flow into the muscles of the throat and beak, to cause them to make the noise, which birds make at the presence of a food they hold not yet,) are cause that the spirits being otherwise directed, do also otherwise dispose the muscles of the throat, tongue and beak, of those young Birds, and make them sing songs and utter words instead of the cry, which they would have form'd, if their Dam had bred them: This must needs so happen; and even those songs or words may then be call'd their natural cry or song, because having always accompany'd an action, that hath made so deep an Impression on their brain, it cannot be, that that action should move their brain, and the spirits should not also flow presently to the muscles, which serve for that song or those words. And likewise, if they have

have been put in a certain condition, or in a certain place to make them learn the better, they will sooner repeat what they have been taught, if they be put again in the same condition and place, than in any other.

'Tis easie also to understand, why it hath sometimes happn'd, that a great noise, as that of a *Trumpet*, having at one blow shaken altogether the ear of a Bird, hath made so strong an Impression in his brain, that having struck out all the others, the spirits have no more diffused themselves towards his throat, than in such a manner, as might dispose the muscles of the *Larinx* to return sounds altogether like that of a *Trumpet*: And we must not wonder, if the passages, through which those spirits flow to the throat, being more difficult to be moved, than the brain to be shaken, the Bird remains sometimes in a kind of silence for many days, before he renders that sound; nor also, if that silence be perpetual, when the parts, which serve for the voice, are not capable to form a like one to the sound,
which

which hath so strongly mov'd the Brain.
 In short, there is no intelligent man, who after this discourse sees not, why an Animal being born deaf, must needs be dumb.

From all which it results with sufficient evidence to a considering Man, *first*, That 'tis the Lungs and the structure of the Wind-pipe, the mouth, the palat, the teeth, and the muscles of all those parts, which by receiving and repelling, or in diversly modifying the Air, is the cause, enabling us to form Voices, and to articulate them.

Secondly, That 'tis by reason of the communication, which is between the brains and the other parts of the body of every Animal, that it is diversly agitated by those Voices.

Thirdly, That in every Animal, capable to form Voices, there is such a commerce from the ear to the brain, and from the brain to all the parts serving for the voice, that the same voice which shakes the brain by the intervention of the ear, disposeth it also to diffuse the spirits into the muscles of those parts ;

parts, which spirits putting them into a posture answerable to the manner in which that voice did strike the brain, make them form a voice altogether like it, if some pressing necessity of the Animal diverts not the course of the spirits to another place.

Which being once well understood, it will be easie to know a thousand things, which commonly enough are not known touching the different effects of the cry and noise of Animals; which I mean not to explain more particularly, because that all those, who have attention enough to conceive the few principles, which I have laid down, will from thence draw all what is necessary to explain it, and because those that are not capable of such an attention, would not conceive what I could say of it even in a more particular discourse.

I shall only stay to consider here, that according to these Principles, Brutes need no Soul to cry, or to be moved by cries. For if they be toucht in any place, or their nerves struck with force enough to cause a great shake in their

their Brain, 'tis sufficiently easie to conceive, that that action agitating the spirits, these must flow much more swiftly into the muscles, and by this means the swiftness of those that run incessantly to the heart, augmenting, must render the pulses thereof more precipitate, which maketh it propel so great a plenty of blood into the Artery of the Lungs, that this Artery being more distended than ordinarily, presseth the Wind-pipe, and maketh the air to be driven out of the Lungs with an impetuosity answerable to that, whereby the blood enter'd there.

The second effect of this quick agitation of the spirits is, that at the same time they flow to the heart, some of them diffuse themselves also to all the other muscles that are in a continual action, as those of the breast; because, whereas the passages, through which the spirits are conveyed in those sorts of muscles, are alwayes open by reason of the necessity of their continual action, the spirits cannot receive a new motion without presently communicating it to those

those Muscles : which causeth those of the Diaphragme and Breast press the Breast in such a manner, as makes the air issue out with unusual force ; and seeing the muscles of the *Larinx* are also strongly agitated , the air thence getting out is beaten in a manner, which holds somewhat of that agitation.

Thus it may be conceived from the sole disposition of the Body, why a Brute cries : And to know how it may be moved by cries without having a Soul, you need but remember the communion there is between the brain, the parts serving for the voice, and all the parts of the body. For, if according to the difference of cries, the brains are diversly moved, and if following that diversity of the shakings of the brain, the body is diversly carried, we need go no further than their bodies, for a cause, why Brutes of one and the same kind are mov'd to come to one another by the cries they make , and why their cries often drive away those of another kind. If we consider only that they have

have a body so mechanically disposed, that the sole structure of it may be the cause that 'tis carried to such Objects, as may be good for them, and from such as may hurt them; me thinks, that how wonderful soever their motions may seem to us, we cannot rationally impute them, and particularly their cries, but to the construction of their bodies; since, if we heed it well, we shall find in our selves, that the cries are not made but by the body alone. For indeed, if we cry, 'tis not because we have a Soul, but because we have Lungs and other parts, which can receive and force out the air with certain modifications.

Likewise, if the Nerves of our Ears be mov'd by a voice, that is, by an air, which other bodies have agitated so, as that our brain shaken thereby, diffuseth spirits into the muscles of all the parts, whose motion can form a voice like that which mov'd it, that is, repell the air in a manner answerable to that which hath shaken it, it is upon no other account but that of our having a Body.

Lastly,

Lastly, if our brain, when 'tis shaken by a noise or voice, sends the spirits rather into the muscles, that serve to carry our body near *to* or far *from* those which caus'd that Noise, than into the muscles of the *Larinx* or of the other parts, serving to form a like voice, it is because we have a Body. So that, if there be nothing found in Brutes but the like effects, we cannot rationally say, that they have ought else but Body.

But as for Us, we must avow (whatsoever we adscribe to our bodies in what regards the causes and effects of the voice) there is alwayes somewhat accompanying them, which cannot be from the *Soul*. For as 'tis true (to speak in *general*) that it would be sufficient to have motions, for which our body is fit, and to receive the effects which are wrought upon it by the various objects, that agitate the brain thereof, to conserve our body, for as much as the proportion and relation God hath put betwixt it and the other bodies of the World, gives it, without our thinking

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on't, all what can maintain it in a condition futable to its nature : So 'tis true also to say, that all *that* would be acted in us, and yet we *perceive* nothing of it, if we had nothing but the Body. But now, reflecting on what happens to us, when some noise strikes the nerves of our ear, we shall plainly find, that besides that shaking of the nerves of the Ear, which continuing to the very internal parts of the brain, doth there agitate the spirits, and makes them flow into the muscles, serving to move our whole body near to or far from the noise, there is always conjoyn'd a *Perception* to every shake of our ear, or of the other parts of our body : And at times we even find in us a *Will* altogether contrary to the motions which that noise excites in our body. And although sometimes the impetuoufness of those motions be such, that we can hardly stop them in their carriere; yet 'tis manifest, that that contrariety would not be found in us, if what renders us capable to *Will*, were not differing and altogether distinct from what, makes us capable to *move*. But

But of those two things which we find in our selves, besides *Motion*; I mean, the *Perception*, which we have, when-ever the nerves of our ear are shaken; and the *Will*, which we have by consequent, to *consent* to the motion, to which our whole body is excited, or to *restrain* it; me thinks the latter is so evidently distinct from our body, that none but very inconsiderate persons can be without observing and knowing the distinction.

As to the *Perception*, we have on the occasion of the shaking, which the voice causeth in the nerves of the ear, though it be somewhat difficult to be distinguisht from that shaking, because it always accompanies it; yet 'tis easie to him, that is a little accusom'd to judge of the effects by their causes, to find, that the shaking, being a motion, cannot appertain but to our Body, and that the *Perception* being a Thought, cannot belong but to our Soul: And as we have found by other reflections, that the Union of our Soul and Body only consists in this, that certain Thoughts

are so united to certain motions, that the one are never excited without the others be so too at the same time; we ought not to wonder any more to find, that the nerves of our ear shall never be shaken, but we shall presently feel in our Soul a *Sensation*, or, if you will, a *Perception* answerable to the manner the nerves are shaken in; nor ought we to believe, that that *agitation* and that *perception* are one and the same thing, although they always accompany one another.

We are therefore to consider two things in that we call *Sound*; one is the manner, in which the *Air*, striking the nerve of our ear, shakes our brain; and the other is the *Sensation* of our Soul on the occasion of that agitation of the brain. The former belongs necessarily to the Body, because 'tis nothing but a Motion; and the latter belongs necessarily to the Soul, because 'tis a *Perception*.

So likewise in *Speech* there are two things, viz. the Formation of the voice, which cannot come but from the Body, according

according to what we have already discours'd; and the signification joyn'd with it, which cannot be but from the Soul. So that *Speech* is nothing else but a voice, by which we signifie what we think. 'Tis true, you may also (as hath been already observ'd above) joyn your thoughts to other signs besides the *Voice*, as to the characters of *Writing*, or to certain *Gestures*, and that indeed all those ways of expressing our selves are nothing but ways of *speaking* (to take the word in a general and large sense :) But then, because the *Voice* is the most easie signe, the word *Speech* hath been appropriated to it, leaving to *Characters* the word of *Writing*, and to other ways of expressing our selves the word *Signe*, which is that of the *Genus*, common to all those three *Species's*.

It may be I have already said enough of each of them, to make them to be sufficiently distinguish'd; but possibly also, since I have not examin'd them but on the score of what they have common among themselves, it may not be useless or tedious, to speak of them apart,

apart, that it may appear wherein they differ one from another.

And to begin with that kind, to which hath been left the name of the *Genus*, I mean, the *Signes*, we must, to comprehend in a few words what may be known of it, take notice, that some of them are *natural*, others, that may be called *ordinary* or *common*, and others, that may be term'd *particular*.

The *natural* ones are those, by which, because of the necessary communion, which is between the passions of the soul, and the motions of the body, we know from without the inward different states of the Soul. I have said above, that these motions are the same in all men. But yet we are to remember, that since we may purposely constrain them, or excite them at pleasure, we are not to trust them too much, nor believe that they signifie always what they should signifie.

The signes, which I call *ordinary*, are those by which most men are wont to declare certain things, and those are meerly of *institution*: Some are more

universal

universal, others less. E. g. When we will, without a voice, say that we *consent*, we give a signe with the head, quite differing from that which we make to shew, we *consent not*: so we make certain signes with the hand to drive one away. And these kinds of signes are *general* enough; but those, by which we declare our respect to one another, though commonly they be the same in a whole Country, yet they are very different in another.

The signes I call *particular*, are those in which a whole Nation or a whole Commonalty agrees not, but which are instituted *twixt* two persons or a few more, to signify certain things, which they would not have others to take notice of.

As for *Writing*, there is none that's *Natural*, and 'tis by *Art* only, that men have found out the secret of it. As they saw, that they could make *Gestures* and *Voices* to signify what-ever they had a mind to; so they thought, that giving significations to *Characters*, which the hand might form, those

would be signes, which remaining for a long time after us, would make our thoughts known not only to those that should be far off, but also to them that should be born a great while after them.

And this hath been done divers ways. At first were used such characters, whereof each signified a *Thing*; but this way was troublesome, forasmuch as men were to learn too many Characters, and to remember too many significations; besides that by that means there could only be signified *Things*, but *Actions* not conveniently.

Afterwards, as it was observ'd, that all the diversities of Speech proceeded only from the different ways of forming Voices, or articulating them, and that *Five voices* only, differently articulated, or diversly assembled, did form all the words; it was thought fit, to give a *Character* to each of those Voices: next there were instituted Characters to mark their *Articulations*; and the assembling of those different characters made *syllables*, which being
joyn'd

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joyn'd together did compose entire words: so that disposing those Characters in an order like that we form the voices in, or the articulations which they represent, we remember the words, and those words make us remember the things they signifie. Thus we see, that *Writing* is a way of *speaking* to the Eyes, which 'tis true demands more time to express, but then it lasts also much longer.

It hath likewise this other defect, that few persons can see at the same time the Thoughts of him that useth it; but since *that* is made up by this admirable advantage, of being able to signifie the thoughts of the *Writer*, notwithstanding the distance of places and times; it hath alwaies seem'd so great a convenience, that in seeking to supply what is wanted, men have at last found the *Art of Printing*, that is, of making Characters of mettall or wood, which being once ranged, and charged with ink or colour, can mark all the leaves, needfull to gratifie many to read at the same time and in divers places the same thing.

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I do not discourse here, that there are wayes of writing, that are *ordinary*, and others, called *Ciphers*, which are peculiar to certain people : Neither do I recite the way of expressing *Numbers* upon paper by characters that bear most commonly the name of *Ciphers*; nor that of expressing *Sounds* by other characters called *Notes* : For all that is sufficiently understood of it self.

As to the way of expressing ones self by the Voice, to which principally hath been given the name of *Speech*, we may say, that there are Voices *natural*; as those that are put forth in Grief, in Joy, and in the other passions. But (as I have already said of *Signes natural*) we must not always trust those voices, and they be often strained, or used to make others believe, that we resent what indeed we resent not.

There are other Voices, which men make use of to expresse to one another their thoughts : Some are more universally receiv'd, as those are which compose the Language of a whole People; others are more particular, used

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by persons, that agree amongst themselves of words altogether new to signify their thoughts.

I have already taken notice, how we begin to speak when we are little Children; how one may learn a new Language; and if there be any thing left to be said on this subject, it will be to consider in this place, how he that learns a new Language may turn it into a habit.

For that, we are to observe, that we joyn from the time of the first Language we learn, the *Idea* (or image) of a thing to the *sound* of a word; which is entirely upon the score of the Soul. For the sensation, call'd *Sound*, and the *Image* of the thing, made to be signified thereby, are all from the *Soul*, as we have already made out. From the *Body's* part there is a motion of the spirits and brain, which every voice excites, and an Impression, which every thing leaves there: But that *motion* is alwaies joyned to that *Impression*, as the *Perception* of every sound is always joyned in the Soul with the particular image of
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this or that thing; so that when we will expresse the *Idea* of that thing, we conceive at the same time the *sound* of the voice, which signifies it: then, on the occasion of that *Idea*, and of the *Will* which the Soul hath, that the brain should duly dispose it self to diffuse the spirits into the parts, which are to form it; it comes to pass, that it is shaken at the place where the impression of that thing did remain, from whence the spirits flow into the muscles of the parts, which serve for the voice, to dispose them to form that which signifies what we have a mind to say: And as we have learned to joyn all those things from our Birth, that conjunction follows so close the will we have to speak, that we imagine that what is so readily done, must needs be much more simple; and since we see not any Engin much composed, but it performs its effects with much difficulty, we can scarce believe, seeing the facility there is in *speaking*, that there should need so many parts to be acted for that purpose: But we must accustom our selves by admiring, the

the structure of our Body, to consider that 'tis made by an incomparable Workman, who is inimitable. Besides, if we are convinced, that the Union of the Body and Soul proceeds only from the perfect correspondence, which God hath establish'd between the different changes of the brain, and the different thoughts of the Soul; we ought not to wonder, that the one acts so easily upon the other, and that their actions do always accompany one another so well, as long as God Almighty preserves their Union.

But in regard that this is one of the most important verities, that can fall under consideration, it will not be amiss, for the opening of all the difficulties thereof, to observe, that there are *three* kinds of Correspondencies between the Soul and the Body.

The *first* is *natural*, and that is that necessary correspondence, by which certain sensations rise alwayes in the Soul, when certain motions are excited in the brain; as motions are excited in the Body, when the Soul hath a will to it.

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And this correspondence cannot absolutely cease but with our life, and that which wholly changes it, causeth death.

Besides this, there is a *second* Correspondence 'twixt the *Idea's* the Soul hath of things, and the Impressions which those things leave in the brain. This correspondence, no more than the first, cannot change altogether; and whilst the Soul is united to the Body, she never has the *idea* of things corporeal, but their impression is in the brain.

But there is a *third* correspondence between the *Name* of every thing and its *Idea*, which being only by *Institution*, may be chang'd: but yet, in regard the *sound* of the first name, men give to a thing, is a sensation, which the Soul strictly joyns to the *Idea* of that thing; and since also the *impression* of that name is found joyn'd to that of the thing in the brain, we find it a trouble to sever them: Whence it is, that when we begin to learn a Language, we commonly explain by the *first* word, by which we nam'd a thing, the new word, by which
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we intend to understand it in the tongue, we are learning.

And there are even such, whose brain is so disposed, that when they learn a new Language, they always joyn to the words of that, which they already know, the words of the second, to represent to themselves what they signifie.

Others, that have another disposition of the brain, do so easily joyn the sound of a new word in it self to the *Idea* of the thing, that that *Idea* is equally represented to them by the two words, and they not obliged to think on the one to understand the other.

Thus one may so well joyn one and the same thought to many signes, and to words of different Languages; that one may with an equal facility use both to express it: But with a very little consideration we may easily judge, by the pains we find in the beginning, to joyn the words of a new Tongue to the Image of every thing; by the necessity we are in, to joyn the image of a new word to that of an old, which made it to be understood; and even by the pains
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we experience in pronouncing those we learn, that *Speech* indeed depends upon the relation and correspondency of many things, and that, if afterwards it becomes easie, 'tis only from the excellent composition of the brain, and the admirable commerce between its motions and our thoughts.

For the rest, me thinks, if the Soul is oblig'd, whilst she is united to the Body, to joyn her thoughts to words, which cannot be heard nor form'd without the organs of the tongue and the ear; She might, if that union ceased, much more easily discover to every other *Spirit* what she did think. And truly if it be a pain to him that examines it, to conceive, How the thought of a man that speaks is joyn'd to the motion of his brain, and the motions of his brain to those of the parts serving for the Voice; if it be difficult to comprehend, How that Voice, which is nothing but Air agitated, strikes the ear, and is able by moving the brain to excite in his soul, that hears the sound of the words, the *Idea* of the things signifi'd by them;
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if that, I say, is so hard to conceive, because we know, there is so strange a difference between the nature of the Spirit and that of the Body, we cannot but easily comprehend, that if two Spirits were not united to Bodies, they would find less difficulty to discover to one another their thoughts, in regard there is naturally much more proportion between the thoughts of two like Spirits, than between the thoughts and the motions of two Bodies; and upon the least reflexion made on the facility and clearness, with which one man conceives the thoughts of another by *Speech*, we shall avow, that a Soul might incomparably more clearly and more easily conceive the thoughts of another Spirit, if both of them depended not from the organs of the Body. For a spirit sure should more easily apprehend a thought which is a thing spiritual, than the signe of that thought, signes being things Corporeal.

Thus I esteem, that 'tis much more natural for spirits to manifest or to communicate to one another their thoughts

thoughts in themselves, and without any signes, than to speak to one another, that is, to communicate their thoughts by signes, that are of a nature so different from that of Thoughts: The pains also which every one finds in conversation, and on all occasions where men impart their thoughts by signes or speech, is not to comprehend what another thinketh, but to extricate his Thought from the signes or words, which often agree not with it.

'Tis also the ignorance of the signes and words, that is the cause, why men, bred in different Countries, are a long while together without being able to understand one another: But as soon as acquaintance hath afforded them all what's requisite, readily to unfold what every sign or word means, they find no more trouble to conceive their thoughts, of how different Nations soever they be. Which evidently shews, that men understand one another naturally; that the thought of one is alwayes clear to another, as soon as he can perceive it; and that, if there be men, who conceive better

better than others what is said, that facility of understanding comes from the structure of their brain, which being so disposed, as that the impressions, I have spoken of, are there more easily received, better ranged, and more distinctly marked, makes the thoughts, answering thereto, to be also more easie, more consequent and more clear; whereas those who want that good conformation and disposition of the brain, must needs be slower in conceiving, by reason of that necessary correspondence and relation between the motions of the Brain and the thoughts of the Soul, whilst she remains united to the Body: But who seeth not, that that entanglement would cease, if the Soul were separated from the Body?

'Tis also from the Fabrique of the brain and the other parts serving for the Voice, that the facility or difficulty of the expression comes, and the pain, that some have to speak, proceeds only from hence, that the parts of their brain, which answer to the thoughts of the soul, or those that serve for the
Voice,

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Voice, are ill dispos'd; but not from their Thoughts, which alwaies explain themselves clearly by themselves, and would never be obscure, if they were sever'd from the signes, or the Voices, employ'd to make them to be understood, and often not agreeing with them.

In short, that indispensable necessity, men are in, during life, to express themselves by words, is the cause that those, who naturally have their Brain better dispos'd in what may serve for the operations of the Soul; who have more vivid impressions of every thing; who know to range them better, and who are accustomed to express them in the most proper words; are alwayes those, that speak with most ease, the greatest agreeableness, and the best success: insomuch that if one will search well after the physical causes of *Eloquence*, they will be all found in that happy disposition of the Brain.

We know, that the *first* part of an excellent *Orator* is, to be able, easily to discern among all the things, that offer
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themselves to his Mind upon the subject he is to treat of, what his Auditors are to know thereof; to the end that he may precisely tell them nothing but that; and 'tis evident, that unless he have a Brain dispos'd to keep the impressions of every of those particulars very distinct, he cannot make that due discernment of them.

The *second* consists in the well ranging of all what is able to make the things, he designs to express, to be understood; so as what is the most simple, the most clear, and the first in the order of nature, may serve for a Light to clear up what follows, which of itself might be more obscure: And that cannot be, when the parts of the Brain are ill dispos'd, or the course of the Spirits ill regulated; for then the impressions of the things confounding themselves, often present to the mind at first, what ought not to be propos'd but at last; or else they are stirr'd with so much precipitation, that the mind can neither reflect upon the order of every one, nor put it in its due place.

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The *third* is, to know well, and to find easily the word, by which each thing is properly signified in the Language, he useth; and that depends from the *Memory*, which cannot be so faithful as it ought to be, unless the parts of the Brain be so well ordered and in such a temper, as keeps the impressions from confounding themselves, and the *idea's* of one word from presenting themselves, when he seeks for another.

These are the *three* things, that are absolutely necessary in the design of *Instructing*, which is only the *first* part of *Eloquence* and these three things require a Brain of parts well order'd and stay'd and a Course of Spirits very well regulated; which, if there were no more required, is very difficult to find.

But then, when we come to consider, that for the *other* part of *Eloquence*, which tends to *move*, we must know the *Passions* of the Auditors, and their springs, in order to strengthen or to change them, according as shall be requisite for the end aimed at; and that

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the greatest secret, well to express a Passion to, excite the same in others, is to feel it in our selves: we are obliged to confess, that for the good success therein, it seems that the parts of the Brain cannot be agitated enough, nor the Course of the Spirits be too impetuous.

'Tis true, if we did speak to people, that were onely subject to *Errour*, and not to *Passions*, it would suffice to speak the things in order, to explain them clearly, and to prove them in order to persuade the Auditors of them; and for that purpose it would be sufficient, to have the parts of the Brain well ordered, and a temper not to be easily mov'd.

But commonly we speak to persons, who besides *Errours* are so subject to *Passions*, that they are not perswaded, except you be equally furnish'd with what is requisite to *instruct*, and to *move*; and these two things depend from two dispositions so opposite, that 'tis hard to finde men furnish'd with Brains so temper'd and adjusted, as to afford

afford both those perfections together.

We find also, that generally all those that are fit to *instruct* have a coolness, which makes them languid when they will *move*; and on the other hand, that those who are very apt to *move*, have a fire in them, which maketh that the Auditors cannot conceive, but with difficulty, what they say to *instruct*; Whereunto the Example which *Cicero* in one of his Discourses relates of two Orators; agrees admirably well. He saith, that one of them was furnished with a great clearness of mind, but was of a cold temper; and seeing that he had twice try'd to get some accused persons quitted, without being able to make the judges resolve for it, though he had perfectly instructed them; he besought the *other*, whose *genius* was altogether different, to speak on their behalf; which succeeded wonderfully well: And *Cicero* observeth, that that vehement Orator, seeing there remained no more for him but to *move* the Judges already *instructed*, composed himself some hours before he went to the Audience

dience, to speak of that matter in a private room with so much heat, that he was already in a sweat, when he came before the Judges, whom he constrain'd, by the vehemency of his action, to grant him what the first could not obtain of them by the strength of his reasons.

As often as I think on this case, I cannot but admire the advantages, which the *Relator* of it had in *both* the parts of Eloquence; and though I look upon him as the Pattern, which all those that mean to prosper in this Art, ought to propose to themselves, I avow, that he appears to me in-imitable. But he may serve as an Example to shew, that one and the same person may render himself capable to *move* and to *instruct*. I say, *render himself* capable; for I think not, that one may be *born* fit for both these things, if we consider only, what we naturally find in every one; and I think that of the two Talents, which serve to make a man perfectly eloquent, there is one that may be supply'd by study, when the other is in our nature; but this is not reciprocal.

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And the better to examine this difficulty, we are to observe, that those who have a lively conception, have commonly the Passions violent, because they have all the parts of the brain very subtile and exceeding moveable; but ordinarily they have but little memory, and if they find things easily, they remember them difficultly. On the contrary, those that have the parts of the brain grosser and more fixt, conceive things less and less easily; on the other hand, their passions are not so prompt; but for a recompence, they retain longer both *things* and *passions*.

But 'tis easie to see, that this latter sort is capable to speak, when the business is only to *instruct*; but if the spirits of men are to be managed, and not to be informed of certain things till they have been inspired with certain passions those latter will never get their end. And if sometimes by virtue of observing other Orators, or by reading their Works, or by hearing them, they find out their Dexterities; they cannot imitate them but in *copying* them in sub-
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jects altogether resembling those which such Orators have handled, without ever producing any thing matching the *Original*. And even sometimes, for as much as the Memory is all their excellency and strength, they borrow the very words of those, whom they copy, and often they *name* their Authors to add some weight to the things, which they commonly deliver so little to purpose, and alwayes so frigidly, that they would be intollerable, if they were not supported by some names in veneration among Great men.

Orators of this sort may exercise themselves long enough; they will never arrive higher than to be *Copists* of some one entire piece; but they will never gain the dexterity to reunite many strokes of different Desseins, much less that of making new ones.

Whereas those that are of a contrary temper, having a lively and quick imagination, know easily the strength and weakness in a subject; they soon discern what is to be declar'd, what to be hid: if they be obliged to say all, they

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know how to prepossess the spirits before they propose what might be prejudicial to their Party, or displease the Auditor; and when they form the design of their discourse, if they imitate other Orators, 'tis only as far as it agrees to their argument: And to speak truth, a Man of wit falls rather upon the thoughts of the Great Men that have been before him, because *Reason* suggests to him what hath been suggested to them, than because he reads their Works.

'Tis true, that that secondity of the mind that maketh him easily to conceive and bring forth, may be the cause, that in certain things he will be too much carried away, or dispose them ill, or also not be able to retain them; but these defects are not without remedies.

The *first* may be supplied by a frequent exercise of speaking upon the subjects, in which a man finds he is wont to be most easily carried away, and by accustoming himself not to pass certain bounds which he prescribes to himself, or maketh his friends prescribe

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to him; and 'tis not hard to give to one self these reins, after a man once knows his propenseness to be transported.

To remedy the *second* inconvenience, a man must accustom himself to marshal his thoughts, and to order them well upon all the subjects he proposeth to himself, of what nature soever; and as the way of *declaring* them is very different from that of *conceiving* them, he must, to accustom himself to speak well what he knows, often ask himself, how he would declare this or that matter; if he should be obliged thereto; in what manner he would handle the *same* subject before a great multitude of people, or before a less Assembly; what would be said of it, if spoken before persons of power and honor, or before his Equals; and to render this practise more usefull, he is to examine when others have spoken in publick, wherein 'tis they have succeeded well, & wherein been deficient; and even to endeavor, after having found the cause of their failure, to make up the same discourse better than they did; and to continue

these Exercises until one's mind be accustomed well to digest all sorts of subjects.

As to the *third* Inconvenience, which is that of the Memory, seeing that that cannot be defective, but in not representing to us the *things*, or in not furnishing us with the *words*; there is a remedy for the first defect, by putting the *things* in so natural an order, that the one must needs make you remember the other by the connexion they have together; and then, after a man hath form'd the dessein, and order'd all the parts of a discourse, he must often revolve and repeat it with himself, to be accustomed to it.

For the *Words*, we are not to fear their easie occurring to us for speech, when the matters are present to our Mind, if so be we are accustomed to speak. And for that purpose, a man must impose upon himself the necessity of speaking upon all sorts of subjects, accustomed himself, by writing, to vary and turn them every way, and alwayes to chuse the most difficult or the most ab-

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abstract matters. For when by the force of searching a man can find ways to make *those* things to be understood, he hath almost no difficulty to find words and expressions in all other subjects, that are more ordinary, and which the various necessity of Life render more common.

After we have thus examined, How much Eloquence depends from mens Temper, and how *that* may be corrected or perfected by Exercise; it will not be amiss to consider, That there is no greater Enemy to true Eloquence, than *Lying*: And as Eloquence is a means not only to expresse what we think, but also to oblige *others* to think as we do, it ought never to be employed but to manifest *Truth*, or to make it to be embrac'd and follow'd; and he that employes it to excite in others unjust sentiments, or to make them believe things that are false, commits the most hainous of all treacheries. For tell me, I pray, if human society be not entertain'd but by *Speech*, is it not a violation of the most sacred right that is amongst men,

to employ, for the leading of them into error, or for persuading them to evil, such endowments as ought to serve only to make them know what's *true* or *just*? If this were seriously thought on, there would be much more sincerity; especially when men speak in publick, where the least disguises may draw after them very dangerous consequences. For the rest, me thinks, that to make us accustom our selves to speak nothing but truth, 'tis a powerful motive, often to represent to our selves that we have not the facility to expresse our selves, but because God Almighty, to whom we owe our thoughts and the motions of our tongue, is very willing to excite the one, when we will make known the other. Me thinks, 'tis in a manner impossible for one, that makes often this reflexion, to lye. For, I pray, if we be convinced, that God is not subject to error, nor to a lye, nor to any iniquity, which alwayes follows it so close; how can we employ Signs and Voices, which are not form'd but by his power to do that, which displeaseth him

him most? I admire, that a Heathen came to know this truth so far, as to say, *That no man could be eloquent, except he were honest*; and that we should have such contrary sentiments.

But not to mix here *Morality* farther than 'tis sutable to a Discourse of *Natural Philosophy*, it will be to our purpose to examine in this place, whence it is, that not only an *Orator* ought to be a man of integrity, but also that he cannot be perfectly eloquent, unless he be so? And this is not hard to conceive: for, if it be agreed on, that to be perfectly eloquent, a man must know the Art to instruct his Auditors, and that of raising or allaying Passions, according as it shall conduce to the end, that is proposed; we must also agree in this, that an *Orator*, that speaks the contrary to what he knows, will not so easily find words to expresse it, as if he spoke the truth; and if to avoid mistaking, he studies what he is to say, it must be acknowledged, that his Discourse; which will be but a piece of Memory, can never have that grace nor force, which is found in

that of a person, who having learnt to speak well, and speaking what he thinks, fears not, he should mistake.

Again, it must be granted, that if he, that is not an honest man, will excite in others the motions and passions, which really are not in himself, 'twill always go off coldly, to express passions studied; and if, to surmount the effect of that constraint, which appears when a man will refrain his own motions to satisfy others, he will blot out all the strokes and the little motions, by which his Countenance, Eyes, and Gesture would shew the contrary to what his Words do express, he must so exceedingly strain, that not only he loses the grace, without which a man cannot please nor persuade, but also renders himself odious, and is so far from exciting in others the motions which he hath not in himself, that he begets horror in all those, who persuade themselves, that he indeed feels the *violence* of the passions, wherewith he appears to be moved.

In a word, 'tis evident, that there is naturally such a relation between the Sentiments

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timents of men, and the Signes and Words used to expresse them, that one and the same person can never tell a Lye so gracefully as a Truth: And as a man cannot be very eloquent, when he constrains to *say* what he doth not *think*, or to expresse what he feels not; 'tis impossible to be very eloquent, unless one be very sincere and honest, seeing it belongs only to a man of integrity to speak nakedly what he thinks; his motions are so just, that he needs not to put on any constraint; besides, the Truth, which accompanies all his words, and that love of Justice, which animates all his motions, give so much weight and grace to his action, that 'tis in a manner impossible to resist it; and which is the chief, we are easily carried away by the motions of a man, whom we believe to be Virtuous: and when he, that speaks, hath the advantage of exciting in others the same passions which himself resents, as he is soon master of their thoughts, so he soon renders their judgment favorable to what he aims at. And since we see, that those, whom

whom a like disposition of body maketh lyable to the like motions, have ordinarily the same sentiments about the same things, we may justly believe, that the fairest means to gain others to the same opinion with ours, is to raise motions in them altogether like ours. For indeed (which particular cannot be too often repeated) as long as our Souls remain united to our Bodies, all our motions will be so consonant with our sentiments, that we shall never be able to inspire the one but by the other.

This reflexion maketh me think, that as we can conceive Spirits not united to Bodies, if there be eloquence amongst them, *that* cannot be by the means of *Motions*, because they are not capable of them: But supposing, that those Spirits are in that state of liberty, wherein they can determine themselves to this or that thing, 'tis easie to conceive, that if one of them, being more enlightned than others, hath a passion for a thing, which a meer spirit is capable to have a passion for, (as for example, for his own glory) he may put his thoughts, which
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he shall manifest to others upon that subject, into an order which shall appear so excellent, that it shall excite in some the same passion which he resents; and on the other hand (to keep to the same example) a Spirit yet more illuminated and better inclined than the former, may make those, who might have fallen into that error, to conceive, that, whereas that Glory can appertain to none but the *Soverain Power*, 'tis a folly for any one to pretend to it, when he is not God.

It might after the same manner be conceived, how meer spirits might inspire one another with divers sentiments touching all such things for which they were capable to have passions, supposing (as hath been said) that they were in a state of chusing one of two.

But to draw from this notion no more than may serve for my intent, it is to be considered, that if for speaking a man needs the motion of the parts that serve for the voice, and if for hearing there is need of the agitation of the parts, that serve for Hearing; there needs nothing
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between two Spirits, to communicate their thoughts to one another, but to *will* it ; And since we find, that the thought of one man is easily understood by another, from the time that the first hath spoken, that is, from the time that by the motions, which serve to beat the Air, he hath moved the Ear of him, to whom he will have his thought known ; 'tis also easie to apprehend, that if two Spirits, who depend not from the Body in their operations, will discover to one another their thoughts, they have nothing to do but to *will* it : There is, me thinks, much less difficulty to conceive the one than the other (as I have already observed :) For in *Speech* there are two things, *viz.* the *Will* to communicate one's thoughts, and the *Motions* by which they are communicated ; but those *Motions* have so little affinity, in themselves, to the thoughts, that it seems very strange, how a thought can be so well united to a motion, as that the one should be an occasion to know the other ; whereas in the manifestation, which two Spirits make to one another

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other of their thoughts; there needs nothing but the *Will* to communicate them; and Spirits being of one and the same nature, 'tis evident that one *Thought* may much easier be the occasion of another thought, than *Motion*.

But next, what hath been said of the Communication of two *meer* Spirits, ought to be said of the commerce that may be betwixt a Spirit united to a Body, and one that is not. For certainly what incapacitates two men to communicate their thoughts to one another without motions, is, that they have Bodies, and that the one cannot be advertis'd by the other but by the motions occasion'd by the Body, to which the Soul is united: But supposing that one of the Spirits have no Body, it is capable to render it self present by its very thoughts to that which hath a Body, as it doth to that which is destitute of a Body; and reciprocally that Spirit, which is united to a Body, will be able, without the intervention of the Voice, to express its thoughts to every Spirit that is Body-less. Mean

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Mean time we are so accustom'd to judge of all things, by those we see, that since men make use of a voice, and very easily understand one another, we rashly judge, that it would be very difficult to two Spirits mutually to communicate their thoughts : And some judge it even impossible, that a Spirit, destitute of Body (for example, an *Angel*) should communicate with *Us*. But 'tis evident, that that proceeds only from the precipitation of our Spirit, who maketh no reflection on what befalls him in the communication, he hath with the spirit of another Man. For if he did consider, that the beating of the Air, and the other things, which serve to make him understand the thoughts of the person that discourses with him, have nothing in them resembling those thoughts ; he would more wonder, that he understands him, than he wonders, when one will perswade him, that two *Angels* speak to one another, or that even one *Angel* can converse with *Us*, without the assistance of a voice.

I cannot in this place forbear to take notice,

notice, how much the reflexion, we make on what passeth *within us*, is capable to make us judge aright of what is done, or at least may be done *elsewhere*. And the Example I draw from the manner, after which we converse with men, is so proper to make it to be conceived, what might pass betwixt Spirits destitute of such Bodies as we have, and even between those Spirits and Us, that, the thing being well examin'd, there will be found no other difference between those two sorts of Communications, but that that, which is between Man and Man, will prove the more difficult to conceive, in regard it is made by the means of *Motions*, which are quite different from *Thoughts*, whereas that, which we may have with meer Spirits, is less sensible, because 'tis perform'd without any of those motions, which render as 'twere sensible to us the thoughts of the men, whose voice striketh our *Ears*.

And this may be also the cause, why we are inform'd, that when Spirits would give any important advertisements

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ments to Men, they borrow'd Bodies, and form'd Voices like those of Men. But those Extraordinary things are not to hinder us from conceiving, that naturally we can communicate with *meer Spirits* more easily than with *Men*. So that if Faith teaches us, there are Spirits not united to Bodies, and that he, who hath created them as he hath us, having committed to them the care of conducting us, they are always present to our Spirit to direct it without constraining it; there is nothing in that, which is above those things, we think we know best. For in short, as we conceive, that the communication between two Men is made by *Speech*, that is, by a *Will* to express what they think, and by the *motions* answering to that will, we may also, we think, conceive, that the converse of two Spirits may be made by the *sole Will* of manifesting themselves to one another; and that if a *meer Spirit* communeth with a Man, though that be in a way less sensible than is that of ordinary Words, yet 'tis after a manner intelligible, which may insensibly give him

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him the thoughts, he needs for his conduct; which in a word, is, to inspire him. Even so may we easily conceive, that God, who causeth our Spirits to move Bodies, can (if need be) give to an Angel the same power to make himself to be understood by speech.

Now, methinks, I see, what is properly meant by the word *Inspiration*; and I believe, I am not deceived, when I say, that 'tis by that means only, that those thoughts may come into our mind, which have no affinity to any of those, that naturally are in our Soul, only because we have a Body.

Next, I see, that we know no more the Spirits of any of all those men, that speak to us, when they inspire us with their thoughts, than those *meer* Spirits, which I think capable to inspire us better thoughts. And as the new thoughts, which come into our mind by the conversation we have with men, are a sure testimony to any of us, that they have a Spirit like ours, we are to take the new thoughts coming in to us (without being able to find the cause of them in our

our selves, or impute it to the discourse of men) for an assured testimony, that there are yet other Spirits, that may inspire us with them.

I find also, that the custome of understanding the thoughts of other men by gestures and the voice, maketh that way to affect us more, than the things, which are inspired us without it. But if I heed it well, I see, that we do not more know the Spirits of men that speak to us, than the Spirits that inspire us. A like Air, thrust out by the Lungs of him, that discourses with us, striking our ears, exciteth, upon the agitation of the Brain, sounds in our Soul, and at the same time the images or conceptions which we have joyned to those sounds : But in truth, neither that propelled Air, nor any thing of what passeth into the Body from him that speaks to us, is his thought ; and if we have any reason to believe him to have thoughts, 'tis only because we feel, that he excites new ones in us. But if all the reason, we have to believe, there are Spirits united to the Bodies of the men
that

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that speak to us, is, that they give us often new thoughts, such as we had not, or that they oblige us to alter those we had; can we doubt, when new thoughts come into us, that are above our natural Light, and contrary to the sentiments which the Body may excite in us, can we, I say, when no men inspire us with them, doubt of their being inspired us by other Spirits? I judge, we cannot reasonably; and the custome, we have to receive them by the means of Speech, which is a sensible way, ought not to make us disavow those, that are inspired us by a way different from that of the senses.

I know also, that if we be free to hide our thoughts, whilst our Soul is united to a Body, we might have the same liberty, if it were separated from it; and that in some manner that freedom would yet be greater, in regard that often when we speak to a person, the signes and the voices, by which we express our selves, may be perceived or understood by a Third, to whom we would not discover our thoughts;
where-

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whereas a pure Spirit, who is not obliged to make use of those external signs, can manifest his thoughts to the Spirit he will inform, so as no other shall know of it.

In effect, in that state we now are in of discovering our thoughts, we do nothing else but to *Will*; and although that *Will* be joyned to motions, which fail not to be in certain parts of our body as soon as we need it for the signifying our thoughts; yet notwithstanding our souls are not the cause of those motions (according to what we shewed in our

* In his book entitled, *Le Discernement du Corps & de l'Ame.* 4th Discourse *) and they do nothing else to expresse themselves but to *Will*, so that as long as they are united to our Bodies, we cannot express the thoughts coming into our mind but by moving the Tongue, the Throat and the Mouth; this necessity is imposed on us by that union: But as soon as there should be no such necessity to borrow motions for expressing what we think, there would need no more to make other Spirits under-stand

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stand it, but to *will* that they should understand; and if we would have it hid from them, there would need no more than *not* to *will* that they should know it.

I have elsewhere deliver'd the reasons, by which it appears, that all the action of the Soul consists in *willing*, and I think I have sufficiently made it out, that all what depends from Her, is, to determine herself to one thing or another, so as I shall not need here to repeat any thing of what I have said on that subject: But it will not be amiss to take notice in this place, that although God do not make us conceive, what is the substance of our Spirits, nor how they *will*, that is, how they determine themselves; yet we know clearly, that we have a Spirit, and that our Spirit hath the power of determining it self. But now, as we are assured, that we speak not our thoughts but when we please, we ought to believe, that if we were in a state to need signes and voices no more, we might then by our *will* alone discover or hide our thoughts.

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We are also to remember, that 'tis not more difficult to conceive, that *then* we should make our thoughts to be apprehended by other Spirits, than to conceive, that the spirit of another man should apprehend, in the present state, what we think, when we express it by voice or by signs.

For the rest, when I say, that Souls emancipated from the Body might hide or manifest their thoughts to one another; *that* is to be understood, if they had the same reason to hide their thoughts, they have now in the present state. But 'tis apparent, that, if they shall be happy, as they will have no thoughts but for the Glory of their Maker, so they will be glad that all the Spirits should know them; and if they for ever lose his grace, they will have only such thoughts, which being to serve to publish the effects of his justice, will be known to all the Spirits.

Lastly, we ought to remember, that according to what I have deliver'd of the Action of Souls and Bodies, in the *fifth Discourse* of the *first part*, we say, that

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that one Soul acts upon another Soul, as often as one hath new thoughts upon an occasion given by the other; even as we say, that one Body acts upon another Body, as often as one Body receives some change upon occasion afforded by the other: And as I have shewn, that a Body never gives any motion to a Body, but only for as much as their meeting together is an occasion to the *Divine Power*, which moved one, to apply it self to the other; We are also to conceive, that when one Soul will make known to another Soul what she thinketh, that happens forasmuch as Almighty God brings it to pass, that according to the will of the one, the other comes to know it: And even as the *Will* we have, that our Body be mov'd, does not make it move, but is only an occasion to the *First Power* to move it after such a manner as we desire it should be mov'd; so the *Will* also, which we have, that a Spirit should know what we think, is an occasion to that *Power* so to order things, that all may be disposed in such a way, as that

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that Spirit may understand it.

Thence it necessarily results, that 'tis as impossible for our Souls to have new perceptions *without God*, as 'tis impossible for the Body to have new motions without Him. And 'tis evident besides, that our Souls, which depend from Him for their Being and for their Conservation, depend not at all from Him for the *Use of their Will*, whereof he leaves the determination altogether free. And I dare deliver it as a thing that will appear manifest to all men of good sense, who shall attentively consider it, that as the Body is a substance, to which *Extension* belongs naturally, so that it would, as to effects naturall, cease to be a Body, if it ceas'd to be extended; even so the Spirit is a substance, to which the power of determining it self doth so naturally appertain, that it would cease to be a Spirit, if it ceas'd to *will*; and God Almighty hath made it thus, that he might be loved by it. Which appears so evidently, that if he had not declared it by so many miraculous testimonies of his
tenderness,

tenderness, which goes so far as to ask of us our Heart, that is to say, our Love; we should be altogether perswaded, that He will be the object of our *will* in this World, by this only consideration, that there is no object so great, but it can embrace it.

As to the power of *knowing*, perhaps he hath not given us that so great, at least not in this World. But 'tis certain, that we have knowledge enough, as not to fail, if we use well the light we have, and the power we are endowed with, of judging of nothing, but after we do well know it. For, God gives us all the light we need; we have *idea's* very distinct, to know the things of Nature as much as 'tis usefull to know them, since we can, when we use prudence, discern wherein every one is beneficial or hurtfull to us: And although, according to what I have already observ'd, he affordeth us not the advantage to know the very substance of things, yet he so well discovers to us, wherein they can hurt or profit us, that to use it aright, we are only to will it.

As for those things, which are *above Nature*, although they infinitely surpass our knowledge, yet we have very distinct notions of the Reasons, why we are not able to *conceive* them, and of the Reasons also, why we are to *believe* them. For if on the one hand in the doctrine of Faith there are things to be found, that are beyond our natural light; we have on the other, such evident signs of the Obligation for us to submit our Spirit to his Authority, who proposeth them to us, and so great convictions of our unableness to comprehend all what is; that we have cause to take all, what comes to us from thence for infallible Truth; in a word, for Notions which we hold from *Grace*; and from which as well as from those which we hold from *Nature*, we may deduce all the Conclusions that may serve to regulate our Belief, and the Conduct of our Life, so that we are guilty, when by inconsideration or obstinacy we deviate from those Rules.

But without insisting on the consideration

ration of all the great Truths, that might be collected from this whole Discourse, I think it will become me to conclude, after I have consider'd all the several wayes, whereby Thoughts may be communicated, which is properly what we call *Speaking*, and which I had proposed to my self to examine.

F I N I S.



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